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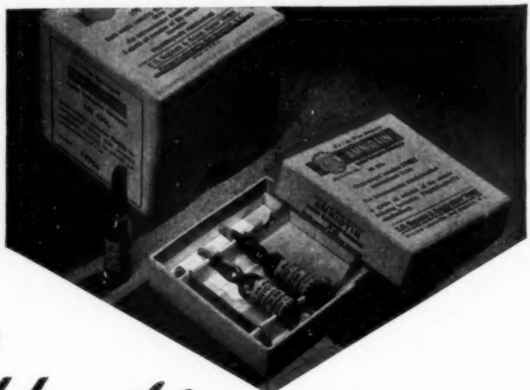

Editorials

Psychiatry and the General Practitioner

THE series of brief psychiatric case studies begun in this issue by Dr. Patry offers formulations helpful to the general practitioner by sensitizing him not only to the general run of mild mental disorders, but particularly to their prevention and the proper handling of extramural patients.

The Decline In Maternal Mortality

VERY gratifying progress is being made in the reduction of maternal mortality. Up to 1929 the mortality was increasing. After that it began to fall until now it has reached the lowest point ever recorded in the United States. There has also been a notable decline in the death rate for diseases associated with pregnancy and childbirth. A marked drop has occurred in the number of deaths from puerperal albuminuria, eclampsia and septicemia. Best of all, the current year promises to eclipse all previous records. However, we are still a long way from our objective and proud boasts are not in order; we are still too near the disgracefully high rate of 1929.

The Birth Agony of Preclinical Medicine

THAT minority of civilized people which would abolish war has no economic ally of colossal power happening to stand by with tangible aid and comfort. Compared with the apostles of preclinical medicine they are utterly handicapped by such all-powerful agencies as the munition makers.

Comparable in medicine to the munition makers are the commercial interests dedicated to the manufacture of drugs for the treatment of disease as the main concern of medicine.

But that minority in the profession which would make preclinical medicine the center, foundation and pivot of all our efforts against disease has an economic ally of colossal power, namely, the life insurance interests; for it is to their direct monetary advantage that disease should be prevented and life conserved. Why cannot this great force be invoked to more purpose?

Just enough attention is given to preventive medicine to disarm conscientious critics. The control of tetanus and diphtheria silences the voice of a wider truth. Lip service is impressive but deceptive; it is not enough.

Newspaper Medicine

NOTHING better illustrates how far the press will have to travel before it ceases its tendency to ballyhoo medical research and contributions—always disadvantageous to the sick—than the experience of Röntgen. And it could happen again tomorrow if a scientist of equal rank announced a discovery of equal moment. Röntgen left the following account of the affair, in a letter to his colleague L. Zehnder:

> On the first of January I mailed the reprints and then hell broke loose! The Vienna Press was the first to blow the trumpet of advertising and the others followed. In a few days I was disgusted with the business; I could not recognize my own work in the reports any more. For me photography was the means to the end, but they made it the most important thing. Gradually I became accustomed to the uproar, but the storm cost time; for exactly four weeks I was unable to make a single experiment. Other people could work, only I could not. You have no conception how upset things were here.

Practicable Filtration of Tobacco Smoke

R. B. DERR, A. H. Riesmeyer and R. B. Unangst, of the Research Laboratories of the Aluminum Company of America and the Mellon Institute of the University of Pittsburgh, have devised an eliminator of the undesirable constitu-

ents of tobacco smoke, such as nicotine, ammonia and tarry compounds. Oddly and ingeniously enough, they use a fresh cigaret of any commercial brand as a cartridge-like filter. Holders have been constructed that will take such a filter without suggestion either of massiveness or of what is actually being accomplished. The real flavor of the smoke is not altered. One cigaret out of a pack suffices as a filter for forty others, or for four or five pipefuls of tobacco, for pipe stems have also been devised by the laboratory workers. When the cigaret filter becomes saturated with moisture and undesirable compounds it ceases to draw well. A dry cigaret removes nicotine less effectively than a fresh cigaret. A metallic holder for the filter produces better nicotine removal than a non-metallic one and also gives a cooler smoke.

These workers report (*Industrial and Engineering Chemistry*, 29:771, July, 1937) the removal by such filtration of 54 per cent of the nicotine of cigarets and 75 per cent of the nicotine of pipe tobacco; the greater moisture content of the latter accounts for the difference. Small puffs remove the nicotine more efficiently than large ones.

The authors are not so quantitatively specific about the tarry matters as they are about the nicotine, but one infers from what they say that their reduction is notable. This staining and filth factor is also, in our opinion, an important factor making for irritation and disease; nicotine is not the whole story.

This work constitutes a notable forward step in smoking hygiene.

Modern War Spills the Blood of All

NOT all the blood in Spain is shed in battle by soldiers, nor in the bombing holocausts of the cities, nor in the multitudinous executions. The transfusion work is very thoroughly organized and civilian populations contribute their blood in vast quantities. Modern war reaches everywhere and sees to it that all bleed patriotically; this it demands literally.

The British Health Campaign

IN England they are spending many millions on a universal health and physical fitness campaign which runs parallel with the vast rearmament program, although any connection between the two is denied. They call it an accidental coincidence. There is no intentional relationship.

At the same time there is much talk about the importance of national health in relation to rearmament, with an eye to possible future wars, and about civilian morale as encouraged by healthy bodies.

They even, like Italy, Germany and Russia, lay emphasis on national health as part of the preparation for national emergencies.

It won't be long now before vast masses of British humanity, in athletic garb, will be marching, counter-marching, stretching and bending in unison in the great public squares of London.

It is a deplorable fact that the threat of war best compels regard to the development of sound bodies in all the people.

If we are going in for war seriously, as a sort of permanent institution, shall we not have to abolish "depressed" areas, the slums, and large industrial areas in the interest of health and morale?

Almost are we persuaded to become worshippers of Mars.

Germ War Tactics

MUCH wishful thinking seems to be done by European military experts regarding the potentialities of germ warfare. A lively discussion is going on in the military publications. Medical men seem to take no part in these plans having to do with the distribution of deadly organisms among enemy civilian populations. The military experts graciously point to the experts in laboratories as a group from whom much is expected as producers of the means whereby pestilences may be spread, so as to paralyze the morale of the enemy. Much faith seems to be reposed in typhus, yellow fever, typhoid, paratyphoid, smallpox, cholera and plague.

The cultivation and freeing of infected mosquitoes and lice seems to intrigue the military experts mightily. It seems that there are some drawbacks to the poisoning of wells with cholera and dysentery, the results not being likely to compare with direct contact transmission. Paratyphoid and typhoid offer better probabilities in this charming field. Great hopes are placed in plague. It is ideal in that it withstands cold and humid surroundings so well.

It is not feasible to use germs in battle because of the great risks that would be run by attacking troops. The best way to infect water, foodstuffs and animals is through the use of planes, which can distribute germs by means of bombs, glass tubes and cylinders, or by special sowing apparatus.

Spring and late fall are the best seasons for this kind of warfare. Great interest is being taken in the proper technique in the distribution of germs designed to be inspired, for example, those of the plague. How are they to be best spread? How long will their infective properties be effective? How shall air currents be taken into account? What quantities must be released to insure an epidemic?

Besides the season, also to be considered are the nature of the terrain, social conditions and hygienic defense.

Populations living in misery and insanitary conditions should afford much opportunity for havoc, particularly with such organisms as those of typhus, cholera and dysentery.

But remember that these views are those of military experts, that, after all, they represent mostly wishful thinking, and that our bacteriologist see clearly difficulties to which the soldiers are blind.

Such "civilizing" work, should it ever come to realization, would probably be carried on by spies planted among enemy populations.

We cannot escape the conviction that much of this subject is military baloney, and altogether unworthy of the so-called experts. The theme, in so far as it has any reality, is a criminal one. We cannot imagine it as smirching the medical profession.

The Eugenic Race

JULIAN HUXLEY, British biologist, thinks that the next step in eugenics will be the application to human propagation of the artificial methods now employed in breeding thoroughbred horses and cattle. He made this pronouncement at the recent meeting of the British Association for the Advancement of Science. The goal will be reached within a generation or two and the character of marriage as an institution will be radically changed. Monogamy and polygamy and polyandry will be practiced by selected, eugenically superior men and women. Just as it is now possible for a good horse in Europe to sire offspring in America, by means of artificial mating, so will the eugenically acceptable father in America beget Grade A progeny in Europe. People will get used to the idea and accept it just as they have accepted birth control. An outworn sentimentalism will not much longer stand in the way. Huxley says he can imagine people harboring a prejudice against the idea, but in time this will be discarded or overcome.

Huxley then curiously proceeds to deflate his own balloon. Absurdities, he admits, are likely to be claimed in the name of eugenics. "It is a shocking story the way the scientific method is being prostituted to perpetuate the Aryan myth. Of course, every one knows there is no such thing as an Aryan race, but even if such a race existed more than three-quarters of the German people would be non-Aryan, including Hitler himself."

It might be added that cattle are cattle, with no absurd myths to affect their controlled breeding.

Absurdities will always be claimed in the name of eugenics. Some myth will always be fostered by those charged with the function of selecting potential fathers and mothers possessing alleged eugenic qualities. One quails at the thought of the possible future set-up in this field of endeavor. Perhaps something worse than war is in store for humanity at the hands of humorless scientists and power-drunk States.

What price eugenics? This is something for us to ponder now, before the nonsense phase gets out of hand.

Rejuvenation of Creative Minds

ORCHITIC opotherapy of one sort or another continues to hold great interest. The charlatan fringe seems to be fading out in this field and good scientific work is being done, as may easily be seen by a scrutiny of the world's recent literature. Once upon a time one would have thought that all effort in this direction had chiefly in mind the requirements of swordsmen grown weary and prematurely old in the wars of Venus. Today there is more concern about those men and women who, were they to be aided by this type of therapy, would have powers conserved and supplemented that have been devoted to scientific, cultural and social aims. It is the waning of creative minds that we should like to see postponed.

Death by electrocution is supposed to modify human testicular androgens and other gonadal elements. But the organs of our numerous criminals might be delivered to laboratories and surgeons with the aid of spinal anesthesia, induced as a preliminary part of the execution ritual.

Medical Education Achieves an Anticlimax

IN its booklet titled The Purpose of Orthodontics, the Committee on Public Information of the New York Society of Orthodontics quotes Dr. Jacques M. Lewis as remarking that "Medical students do not receive any instruction concerning disorders of dentition and orthodontia, and it might be well that a course in the various dental disorders be made part of the medical curriculum, so that we physicians might readily recognize them and thereby more closely cooperate with the dentist and orthodontist."

Here is one of the paradoxes of medical teaching. When one considers the direct bearing of malocclusion upon poor health it seems incredible that the medical schools take it into little or no account. From diagnostic and nutritional viewpoints, nothing is more important than malocclusion, yet here we are being told that our medical graduates know nothing about it. This fact deflates much of the boasted schooling of the modern student.

CARE OF THE INDIGENT SICK

Changes in the administration of medical service are usually urged for the benefit of the indigent; in modern governmental plans these are the last persons considered. Sickness insurance, "medical cooperatives," group hospitalization and all the prepayment schemes offer nothing to the unemployed or indigent. They have no funds to contribute, no wages from which deductions can be made for the support of organizers, administrators, solicitors or propagandists. The indigent have until recently been left to the care of salaried physicians, most of whom were political appointees. The quality of the services was long a public scandal. Organized medicine, almost alone, demanded decent medical service for the poor. When millions became indigent, abuses were so multiplied that they could no longer be overlooked and some of the professional proposals were adopted. Wherever organized medicine was consulted, the poor chose their physicians and service was supervised to insure good standards. The gratuitous services of practicing physicians have always been the main source of supply for medical service to the indigent. Physicians seldom complained of this burden. More recently they have welcomed aid from public funds or private philanthropy when this was not accompanied by the kind of lay control which depreciates the value of medical service. Most proposals for new schemes of medical service to the indigent would begin by depreciating the quality of the service. Fortunately, most of these schemes have never materialized. Just about 90 per cent of the plans that have actually gone into operation and have supplied any additional service to the poor have been proposed, directed and operated by organized medicine.—*Jour. A. M. A.*, Sept. 25, 1937.

THE pH OF THE *Urine*

CHARLES COTAR, M.D.

Vichy, France

AMONG the different tests which the practitioner can carry out in his own laboratory, the determination of the pH of the urine is one of the most valuable.

This test can easily be made by the colorimetric method; the reaction gives valuable indications in the majority of cases of urinary lithiasis and also in the interpretation of the acid-base balance of the body. These are sufficient reasons for the wider use of this new method.

According to Goiffon, the urinary secretion is the chief regulator of the reaction of the fluids of the body.

The H ion is excreted chiefly by the kidney, when the supply of bases in the blood is insufficient to neutralize the acids in meat-eaters.

It is evident that urinary pH is the indicator of the percentage of acids and bases contained in the urine.

THE urine in man is normally acid, its pH being approximately 6.0. The acids present in the urine in demonstrable amount are hydrochloric, sulphuric and phosphoric and the organic acids. It is safe to say that sodium, potassium, calcium and magnesium make up the total fixed bases, to which must be added ammonia, a volatile alkali.

The H ions are excreted chiefly in the form of monobasic acid phosphates. They occur in the urine in association with a certain amount of bibasic phosphates, and thus a buffer system is formed. Thus many H ions can be excreted without lowering the actual acidity of the urine, *i.e.*, the pH.

Considering these different factors that modify the urinary pH, it cannot be considered as an absolutely exact index of the variations of the humoral acid-base balance.

"Between the acid-base imbalance that develops rapidly in the humors of the body and the re-establishment of the acid-base balance in the urine," Violle says, "there are processes of secretion, filtration and respiration in which the blood, the tissues, the lungs, the kidneys, and perhaps the liver, the skin and the intestines take part."

In determining the amount of H ions excreted from the body in the urine, this value can be obtained only by determining the acidity by titration—"the apparent acidity."

The determination of the pH of the urine can practically always be substituted for such titration, as it indicates the "actual acidity." Clinically it is sufficiently accurate.

IN the normal individual on an average meat diet, the excess of acids in the urine is the result of the normal metabolism of the food, and it is formed by the following processes:

(a) The proteins, which are very deficient in fixed alkalies, but generate large amounts of acid in the process of oxidation, including:

Sulphuric acid (from the oxidation of the sulphur constituents, excreted chiefly in the urine in the form of sulphates and conjugated sulphates).

Phosphoric acids (from oxidation of the phosphorus constituents, excreted in the form of phosphates, chiefly in the urine but also in the feces).

Organic acids, which result from the oxidation of any organic matter; such oxidation is never complete, some organic acids can not be completely oxidized in the body, and thus are excreted in the urine.

(b) Lipids, which contain no fixed alka-

lies, but which constantly generate organic acids as described above; if phosphorated, lipids also form phosphoric acid.

c) Glucides, which also generate organic acids.

Fixed bases are supplied by vegetables (Chatron). And under physiological conditions, the body re-establishes its own acid-base balance. The acids produced in the body are normally neutralized by its bases and by the formation of ammonia. The latter devolves upon the kidneys, as it is their function to maintain the pH of the urine at a nearly constant level. If this natural defense is broken down, the acid-base balance is disturbed.

"If there is an over-production of acids, and if, on the other hand, there is a disturbance of the acid-base regulatory mechanism (diminished excretion, loss of alkaline reserve), a condition of acidosis results which is injurious to the entire organism." (Azerad).

IT is easy to make the test for the pH of the urine by the colorimetric method. Normally the pH varies between 5 and 6. Values above and below these limits indicate some disturbance in the acid-base balance of the body.

When such variations are found, a more complete study of acids and bases of the urine may be made, if necessary; the alkaline reserve of the blood may be determined; or the chlorides of the blood and the urine. Among other tests the sodium bicarbonate test is more available to the general practitioner. But the diagnosis can usually be made by the colorimetric test of the pH. In making this test it is important that the urine be fresh, or preserved by the use of thymolated chloroform.

Acidosis is found in cachectic states, in cancer, in diseases of the liver, in nephritis and in diabetes.

As a rule, the pH of the urine in diabetes is on the acid side. Prof. Rathery has shown that the amount of alkaline mineral water (of the Vichy type) necessary to increase the pH of the urine from 3/10 to 6/10 of a degree is always considerably greater in diabetics than in normal persons. In the sodium bicarbonate test, if a normal person is given 6 to 10 grams of this bicarbonate, the pH of the urine rises and rapidly reaches the alkaline zone. The urine in a diabetic in a state of acidosis remains acid after the ingestion of large amounts of alkaline salts. This is a definite proof of great over-production of organic acids that cannot be fully saturated.

In nephritis, the secretion of the buffer substance (ammonia) by the kidneys is deficient, and the urine may be highly acid.

Some types of liver insufficiency are associated with incomplete oxidation and the production of organic acids.

According to Chatron, it is well established that humoral alkalosis is always associated with an increase in the pH of the urine, while humoral acidosis has a tendency to reduce this pH. But if it is true that every humoral alkalosis produces a high pH in the urine, every humoral acidosis does not necessarily produce a low pH, *if the ammonia producing function of the kidney is normal.* This acidosis may also be compensated by an increased excretion of fixed or combined bases.

It should be noted also that the pH of the urine can be high—in the alkaline zone—if the urine contains an increased amount of NH_3 resulting from abnormal bacterial fermentation.

The determination of the pH of the urine is a valuable aid in the diagnosis of urinary lithiasis, according to Chatron.

WE had the good fortune to be able to examine members of three generations in one family and to determine the pH of the urine in each case.

The grandmother suffered from migraine with vomiting, malaise and dizziness which lasted several days after the attack of migraine had subsided. The daughter had an enlarged liver and xanthoma, but showed no acute symptoms. The grandchildren, a girl of eight years and a boy of six, both have attacks of acetonemia with vomiting at irregular intervals. In all these 4 patients, the pH of the urine was approximately 6.4.

In the literature I did not find any reference to the possible inheritance of an alkaline or an acid urine as indicated by the pH, determined in several generations. I wish to draw attention to my findings with the hope that family physi-

cians may study this question and make such tests. Any physician carrying out such a study would make a contribution to our knowledge of heredity.

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FEVER THERAPY

During the past two years, interest in the production of fever by physical means has greatly increased. Since the gravity of the procedure cannot be overestimated, the administration of fever therapy should be in the hands of a competent, well trained organization. The personnel should include at least one qualified physician who remains in attendance throughout the treatment and a skilled nurse-technician who has had special training in the field to administer the treatments.

Physicians intending to use this therapeutic measure should select patients with as much discrimination as they use in determining those who are to undergo major surgical operations. Raising of the body temperature to 105 and 106 F. and maintaining it at that temperature for several hours is a most serious procedure, requiring the utmost vigilance on the part of the attendants for the safety of the patient. Naturally these treatments cannot be considered simple office procedures.

Several methods have been used for administering fever treatments by physical means. Among those in most general use are radiant heat cabinets, luminous heat cabinets and short wave diathermy cabinets. Electric blankets, sleeping bags, hydrotherapy, hot water baths and blankets have been used successfully by many specialists.

In view of the activity at the present time on the part of the manufacturers to supply the profession with equipment for producing fever by physical means, the Council on Physical Therapy has adopted the report "Evidence Required by the Council on Physical Therapy for Consideration of Apparatus Used in Fever Therapy." The most acceptable device would seem to be of the cabinet type, so arranged that the patient may be observed during the treatment and his physical needs attended to readily and conveniently.

The only accurate way of keeping close check on the temperature of the patient is by using the rectal thermometer. Hence, means should be provided to read the temperature conveniently. The unit must be so constructed that the patient may be withdrawn with facility, in case of emergency, and restorative treatment administered. The Council emphasizes the convenience and safeguards attached to apparatus as fully as it does the physical claims made for such apparatus. The paramount question is not so much one of the most suitable method of raising the body temperature as of the safety to the patient with any particular method. —*Jour. A. M. A.*, Sept. 25, 1937.

Syphilis AN INFECTIOUS DISEASE

Theodore Rosenthal, M.D.
Director
Bureau of Social Hygiene
Department of Health
City of New York
New York, N. Y.

RECENT developments in the attitude of the public, brought about by a flood of desirable publicity in the daily press, magazines and radio have defined and, to a certain extent, simplified the problem of syphilis control. Now that the long standing obstacles to clear thinking and frank discussion of syphilis have been largely removed, medical men, whether as individuals practicing privately, or as public health practitioners, can take direct and concerted action to bring about a reduction and ultimately a disappearance of the disease which has been called the "king of killers," and termed by the Surgeon General of the United States Public Health Service the most urgent public health problem of the country today. The public and the profession are coming to look upon syphilis not as reason for moral obloquy, nor as a shameful stigma, but merely as an infectious disease comparable in many respects to more familiar ailments such as scarlet fever, measles, typhoid fever, and tuberculosis, among others. This change in mental outlook has resulted in the stripping away of the superfluous cloak of moral and social guilt, and for the first time permits of the application of the same epidemiologic principles which have been successful in the control of other communicable diseases. When we realize that our knowledge of the etiology, pathology, therapy, prognosis, and mode of transmission of syphilis is very complete, one can well see the potentialities of properly directed medical and public health control measures.

A BRIEF consideration of the measures which have been recommended and which are now in force in some cities in this country is in order. By far the outstanding feature of any venereal disease control program is the educational one. This implies not only the dissemination of knowledge concerning all aspects of venereal disease to as large a portion of the general population as possible, but also requires special emphasis on certain features, and concentration on certain groups of the population. If individuals can be persuaded to refrain from exposure, fewer will be infected. Thus there is a place for moral and religious teaching. Again, individuals exposed may prevent infections by proper means, and here prophylaxis, both chemical and mechanical, requires teaching and emphasis. Infected persons or persons fearful of infection should be taught to subject themselves to the proper examinations without loss of time and, if found infected, to take treatment promptly.

A very important group of persons in whom education is of paramount value is the group of patients actually under treatment. It has been found that venereal patients, whether treated privately or in clinics, will attend treatment more regularly and cooperate better if carefully instructed as to the nature of their disease, and the necessary precautions to be followed in their daily contacts and home life.

Syphilis is an infectious disease, and its infectivity is greatest during the primary and secondary stages, when active lesions are present. The incubation period of the disease is well known (about three to five weeks) and the method of early diagnosis (darkfield examination) well established. This brings us to the opportunity for epidemiological investigation presented by a patient with early syphilis. On *a priori*

grounds, when confronting an individual suffering with either primary or secondary syphilis, it is perfectly safe to assume that exposure, sexual or otherwise, and infection have occurred in the recent past. It may be well at this juncture to point out the responsibilities of the private practitioner as well as public health officials in dealing with such an early infectious patient. To paraphrase an old aphorism, recently revived, incidentally, by Mayor LaGuardia, "just as every lawyer is an officer of the court, so every physician should regard himself as a public health official." Every effort should be made to determine the source of the infection in this recently infected patient. This will require great patience, tact, perseverance, and persistence on the part of the physician. These efforts will be richly rewarded, however, in locating the source of this infection, and placing such person under appropriate treatment. Not only will the public health and the community be benefited by such action, but the physician himself will add to his practice and to his prestige by such investigation. It is a well known fact that syphilis spreads in small epidemics, and it is conceivable that one infected source may in a short time infect literally dozens of people. The vital necessity of locating the source of such a serious infection can be readily seen, and the importance of proper epidemiologic work-up of every early case of syphilis readily comprehended. Search should be made at the same time for contacts of the family or sex contacts of such recently infected individuals, both prior to and subsequent to the appearance of the lesion.

A few weeks after the chancre appears, serologic tests become positive. The diagnosis of syphilis can now be established in the patient, even when no clinical signs are present, by the blood test. This simple diagnostic test is not yet being utilized to the greatest extent. It is recommended that large groups of the population be subjected to serologic tests at every opportunity, such as routine hospital admissions, clinic patients of all sorts, inmates of asylums, schools, jails, and other institutions where large numbers of people can be examined regularly, and particularly all pregnant women. In this way those individuals with so-called "silent" syphilis, many of whom are completely unaware of infection, will be discovered.

THE greatest weapon in combating the infectiousness of syphilis is treatment. Fortunately for the health of the community, only a few injections of an arsenical suffice to temporarily, at least, render an individual non-infectious; one injection of an arsphenamine will cause the disappearance of surface spirochetes in a chancre in less than twenty-four hours.

The treatment of syphilis in this country has been stabilized and more or less standardized so that approved methods are available to all physicians. Through the cooperation of the United States Public Health Service and the New York State Health Department in New York today free arsenicals and bismuth are distributed to physicians for the treatment of their private patients, regardless of economic status. In this way small wage earners are enabled to continue treatment with their own physicians. That portion of the population so situated that payment for treatment is impossible, is, of course, a charge on the community; this group must be treated by public agencies, either municipal hospitals or Health Department clinics. Free laboratory service for the diagnosis of syphilis and gonorrhea has long been offered to New York practitioners, and more recently free diagnostic and consultation centers have been established at vârious points throughout the city to further assist practicing physicians.

NO program for venereal disease control could possibly succeed without the full cooperation of the physicians of the community. Medical opinion today places the same responsibility upon the physician who recognizes a patient with infectious syphilis as upon his confrère who discovers a case of smallpox. The necessity of reporting such a case, as required by the Sanitary Code, and of epidemiologic follow-up is just as great in one as in the other. In addition those patients who lapse in treatment but who are still infectious, or who are potentially infectious, must be followed up either by the physician himself, or through the aid of the public health

authority, who will endeavor to return the patient to his own physician.

Recalcitrant infectious patients who refuse treatment must be isolated for the protection of the public health; if necessary this quarantine procedure is carried out with the assistance of the police.

The present situation in this country may be compared with conditions in the Scandinavian countries some fifteen or twenty years ago. As a result of the application of recognized public health measures, the prevalence of syphilis in those countries was markedly diminished, and it is safe to say that by the application of similar measures in this country we can attain the same objectives. What is needed above all is a clear and rational understanding of the problem, and the whole-hearted and unselfish cooperation of the entire medical profession in this most valuable work.

125 WORTH STREET.

ARTIFICIAL FEVER TREATMENT OF CHOREA

During the last two years CLARKE H. BARNACLE, JACK R. EWALT and FRANKLIN G. EBAUGH, Denver (*Journal A. M. A.*, July 10, 1937,) treated forty-five cases of Syenham's chorea with the Kettering hypertherm. Thirty-seven patients recovered and eight were markedly improved. They have attempted to follow these patients closely and have succeeded in checking forty of the original number. There have been four recurrences; three of these patients have received a second course of fever. An additional patient showed occasional twitching. Thirty-six patients who were followed were cured. Of this number three patients were considered markedly improved under the immediate results. Four patients were classed markedly improved in the recent follow-up study. The average number of treatments were 12.6 and the total hours of fever 32.9. The patients were under treatment an average period of 22.3 days. It is interesting to note that a greater number of heatings were needed in the severe type, while the moderate and mild cases required successively less fever. The presence of carditis, the history of previous attacks and the duration of symptoms prior to fever bore no relationship to the number of heatings required. The incidence of carditis was 42.2 per cent; that is, nineteen cases. Immediately following pyretotherapy seven patients with carditis had recovered, eight were improved and four were unchanged. A patient with pericardial effusion responded satisfactorily to fever and the effusion disappeared. Twelve of the nineteen cases of carditis have been carefully checked in recent follow-up examinations. Six patients were cured and are on a full activity program, while six were improved. The fact that thirty-six of the forty patients followed in this two year study are found to be cured indicates that pyretotherapy is of lasting benefit. However, further study may prove that the results obtained by this therapeutic method are not sustained. Short treatments of two and one-half hours' duration at temperatures of from 105 to 105.4F. (rectal) are most effective if given daily. Longren treatments are necessarily more fatiguing, result in loss of weight, and are dangerous in the face of a complicating carditis. Although fewer fever sessions may be given if the duration of the temperature is longer, the actual hours of fever are approximately the same in the two instances. In the 562 treatments administered to the forty-five chorea patients there were only twelve deliriums. The facts that the heatings are short, that sedatives are but rarely necessary and that the children are very comfortable in the Kettering hypertherm may explain this low incidence. The nurse technician usually reads stories to the children and carries them along in conversations about their daily activity. Children are rarely bothered with postfebrile nausea and retain 2 liters of salinized water without difficulty.

HEREDITARY DISEASES OF THE *Blood*

MALFORD W. THEWLIS, M.D.
Wakefield, R. I.

AMONG the hereditary blood diseases may be mentioned hemophilia, acholuric jaundice, hereditary multiple telangiectasia, hereditary purpura hemorrhagica, sickle-cell anemia and ovalocytosis. Some are inherited as Mendelian dominants; many are a result of heredity and environment. Witts[1] believes that there may be some constitutional factor determining the vulnerability of the bone-marrow in cases of aplastic anemia and agranulocytosis. As he points out, there are thousands of individuals exposed to the same dose of salvarsan but in only an occasional case is the bone-marrow affected.

Goldstein's heredofamilial angiomatosis is interesting to study. Goldstein[2] notes that the disease appears with variations as to hemorrhage and telangiectasis but epistaxis denotes the familial type and the occurrence of multiple hemorrhagic (hereditary) telangiectasis on the face, in the nasal septum and in the mouth is a common manifestation. The disease occurs in both sexes and is transmitted by both sexes.

Pernicious Anemia

HEREDITY must be considered. Friedlander[3] states that the familial factor in pernicious anemia has been definitely established and that many believe there is a definite constitutional factor involved in the hereditary aspect of the disease. He has found that this constitutional and familial character is largely confined to individuals endowed with a diathesis characterized by a fair complexion, light hair, blue eyes and achlorhydria. Friedlander feels that these characteristics are definite components of the genotype in such individuals, who, under the influence of certain so-called releasing factors in their environment, may, in time, suffer a loss of the intrinsic factor of Castle and develop pernicious anemia.

Kunstler[4] reported a case of hyperchromic anemia with hyperacidity. He believes that spinal cord symptoms may precede the blood changes and it is well to bear this in mind. Numbness of the legs and diminution of deep reflexes are shown by the tuning fork in all routine examinations.

This question arises: if there is a patient presenting the earliest symptoms of pernicious anemia, without verification through the blood examination, is there anything to be done before the patient is completely conditioned for the disease?

SOME patients who have primary anemia get into vascular difficulties as soon as the anemia is cured, namely, hypertension and coronary thrombosis according to Levine[5].

Indiscriminate use of liver extract is expensive and not to be recommended. If possible, a diagnosis should be established by red cell volume measurement, accurately determining the color index and also determining if achlorhydria is present. Repeated examinations are often necessary to establish the diagnosis.

It will be seen that the propitious soil for pernicious anemia is being prepared for a long time before the disease manifests itself. There is evidently a loss of time during the predisease period, while the patient is being conditioned for pernicious anemia, and at such time active treatment would be most beneficial. Liver is a corrective but is it justifiable to give it without proof that it is needed?

Being part of Chapter XIX (Diseases of the Blood Forming organs) of the author's work (in preparation) titled *The Early Recognition and Prevention of Disease.*

The advice of an advanced hematologist who establishes the diagnosis through repeated blood examinations is necessary in such cases. There is a great difference between the blood examinations performed in the average hospital and those done by advanced hematologists in research laboratories. A liaison between the research laboratory and the general practitioner is essential. There is small hope of diagnosing pernicious anemia early except by research methods. Research laboratories are usually anxious to help but the general practitioner often hesitates to approach scientists who could and would help him.

CASTLE[6] showed that it is now possible to explain why certain cases of macrocytic anemia will respond to both liver extract and autolyzed yeast and others only to liver extract. Apparently this is due to a failure of the specific reaction between the extrinsic factor and the intrinsic factors. Sprue and the macrocytic anemias of the tropics occur in communities or in individuals on defective diets and show achlorhydria less commonly than occurs in Addisonian pernicious anemia, subjects of which take ordinarily a normal diet. Castle further states that the action of a vitamin in curing a deficiency may be essentially dependent upon a specific process in the gastro-intestinal tract and the deficiency state is not so much a deficiency in the diet as a deficiency of reaction in the gastro-intestinal tract or elsewhere in the body.

Hurst[7] concludes that gastritis and constitutional factors are of equal importance in the production of achlorhydria. Without gastritis there is no achlorhydria but gastritis does not cause achlorhydria unless the patient is predisposed by having a hyposthenic gastric constitution. But he believes that gastritis in the hypersthenic gastric constitution may lead to gastric and duodenal ulcer and a gastric ulcer may become malignant but achlorhydria does not develop. He believes it is gastritis which conditions the patient for pernicious anemia and he emphasizes the importance of preventing and treating gastritis. For treatment he suggests milk for a few days and an unirritating diet for six months, or, if the achlorhydria persists, for the rest of his life. No alcohol at first and later to confine his drinks to lunch and dinner or immediately after. No spirits or cocktails on an empty stomach. Smoking prohibited during strict treatment; later, in moderation after meals; the swallowing of irritating juice is prevented by clean pipes and a wool plug in the mouthpiece for cigarettes.

HEATH[8] finds abundant evidence in the literature to prove an interrelationship between pernicious anemia and idiopathic hypochromic anemia, and their common relation to disorders of the gastro-intestinal tract, exemplified by achlorhydria. Mettier and Minot[9] suggested that achlorhydria may alter the absorption or utilization of the iron of the food in idiopathic hypochromic anemia. Heath quoted Minot as observing pernicious anemia developing in patients who had previously been shown to have an idiopathic hypochromic anemia. Gram is quoted by Heath as even postulating a stage in the development of pernicious anemia in which there may be a temporary simple anemia curable by iron. Heath also states that the two conditions may coexist; that in the course of treatment liver therapy may necessarily be followed by iron administration. The family reported by him showed the presence of both pernicious anemia and idiopathic anemia in each of three sisters of the second generation. Each of these sisters had achlorhydria; combined systemic disease was slowly progressive. The fact that male members of this family were not affected is emphasized by Heath. Usually hypochromic anemia occurs more especially in females and is rare in males. He concludes: "by analogy with the well-corroborated hypothesis of Castle, that pernicious anemia is secondary to the absence of a specific factor in the stomach, it is believed that idiopathic hypochromic anemia is primarily the result of a deficiency, conditioned by a disorder of the gastro-intestinal tract, leading to an inability to absorb or utilize hemoglobin building material from the blood."

CASTLE and his coworkers[10] have definitely proven that the absence of gastric free hydrochloric acid is not a

sine qua non of pernicious anemia. Harvey and Murphy[11] reported a case of pernicious anemia without achlorhydria and note that the possible importance of gallbladder or liver disease has been cited by several authors.

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RECURRENT ERYSIPELAS-LIKE MANIFESTATIONS OF THE LEGS: THEIR RELATIONSHIP TO FUNGOUS INFECTIONS OF THE FEET

MARION B. SULZBERGER, ADOLF ROSTENBERG JR. and DOROTHY GOETZE, New York (*Journal A. M. A.*, June 26, 1937), cite four cases of recurrent erysipelas-like lesions of the lower part of the legs, associated with dermatophytosis of the feet. They believe that this syndrome is sufficiently common to be of some general medical significance. Recurrent erysipelas-like attacks of the lower part of the legs and the association of this syndrome with dermatophytosis has been mentioned by various observers. The sum of these observations seems to lend support to the idea that at least some of these cases are erysipelas-like dermatophytids. It is therefore by no means to be excluded that the recurrent painful swellings of the legs in the authors' cases may be due to fungous allergens. Many trichophytids produce general symptoms with sudden fever, malaise, prostration and even generalized glandular swellings and enlargement of the spleen. Those manifestations in several of their cases, which seem to speak rather for the dermatophytid nature of the erysipelas-like syndrome, are, above all, the demonstrated alterations in their immunologic response to trichophytin. Further observations that suggest the mycotic and possible "id" nature of the syndrome are: (1) the absence of streptocci on culture (case 1); (2) the local exact reproduction of the clinical lesion by means of a specific intracutaneous injection of trichophytin in the skin of the lower leg, and the failure to produce such an erysipelas-like response with trichophytin in distant, nonsensitive skin areas, as well as the failure to produce nonspecific erysipelas-like responses with extracts of various other micro-organisms, such as monilia, streptococci and staphylococci (case 4); (3) the apparent prophylactic effect of specific immunologic procedures in the form of trichophytin injections (case 1), and (4) to a certain degree, at least, the cessation of erysipelas-like attacks when the dermatophytosis of the feet was kept under control. All these facts suggest that the erysipelas-like syndrome could be considered a dermatophytid in the form of a local allergic cellulitis and lymphangitis and of a systemic allergic response to fungous products emanating from the dermatophytosis of the feet. However, at least in some cases, a fortuitous combination of erysipelas and dermatophytosis may occur, while in others the dermatophytosis may open the portals for the entrance of the streptococcus of erysipelas; in still others the syndrome may be produced by fungi alone or by fungi in combination with streptococci or even by some still unknown other mechanism.

THE PROBLEM OF *Cardiovascular Sedation*

JOSEPH REISS, M.D.

First Assistant, Department of Metabolism, O.P.D. Mount Sinai Hospital

New York, N. Y.

NOTWITHSTANDING the specific and detailed anatomic pathology underlying any given case of cardiovascular disease, the one common problem which is presented by nearly every patient is that of anxiety and worry concerning his or her condition. Whether the patient be one submerged in the most severe form of congestive failure with edema of the lungs, liver, and lower extremities, whether it be an elderly patient struggling for breath in certain forms of paroxysmal dyspnea, or whether it be an anginal sufferer fearing pain before it actually occurs, all have an underlying problem which must be adequately controlled before medication of any kind can be completely successful.

In their excellent volume upon "The Failing Heart of Middle life," Hyman and Parsonnet clearly point out the need for complete mental and physical relaxation on the part of the cardiac case before any successful outcome can be anticipated from the use of specific remedies. They have shown the futility of expecting any therapeutic result in the treatment, for example, of hypertension unless all of the external exciting factors which may be irritating the patient are removed or at least controlled.

Strangely enough, but little attention is apparently directed by many physicians to this phase of their cardiovascular cases and not infrequently the clinician pauses to wonder why a remedy which should be effective in a given case fails to give the therapeutic response to be expected. After carefully calculating the dosage of digitalis, aminophyllin, or any other cardiac remedy, one may be disappointed in the incomplete and sometimes unsatisfactory results which occur. Any physician who has faced this problem in his practice can well agree with Hyman and Parsonnet when they state that "the treatment of cardiovascular patients neither begins nor ends with their heart and blood vessel systems; that above all other types of patients these tend to develop and surround themselves with many complicated psychogenic and neurogenic syndromes which must be removed or largely dissipated before the favorable and happy outcome can ensue."

Many such examples may be found in any group of cardiac patients; with the proper use of sedatives to control the anxiety and fear problems of the case, the quantity and dosage of most remedies can be considerably reduced. Not infrequently we have been able to cut such drugs as aminophyllin or nitroglycerin almost in half. Even digitalis seems to be more effective in patients who are less apprehensive about their condition.

While the recognition of such extrinsic cardiovascular problems may be easy, the choice of a suitable and effective sedative may present some clinical difficulties. In the first place cardiovascular conditions are naturally chronic and persist for long periods of time. A sedative, for example, which may act quite satisfactorily for a day or two may present its own special problems when given over periods of weeks and months. In fact, most of the common sedatives which are employed in daily practice sooner or later will cause and produce complications which may add to the burdens of an already overwhelmed patient. The bromides, for example, are notorious for the skin and gastrointestinal reactions which accompany their prolonged use in certain patients. Likewise, phenobarbital or its derivatives

when used alone may produce untoward symptoms when used habitually. Even the salicylates in one combination or another are known to present difficulties. Of the older remedies like paraldehyde, cannabis, valerian, and scopolamine, many objectionable symptoms appear when these are employed over any extended period of time.

We were impressed several years ago by Wolffe's statement that in addition to the synergistic effect sometimes produced by combinations of drugs, there may also occur the removal of certain objectionable features of two or more drugs when they are placed in combination. Thus, for example, the addition of a soluble calcium salt with phenobarbital may entirely remove the so-called "hang-over" effect, while the addition of theobromine sodium salicylate to such a combination may enhance the effectiveness of its rapid absorption. For some time we have been using the following combination: theobromine sodium salicylate gr. 3, calcium lactate gr. 1½, and phenobarbitral gr. ¼, in the form of an enteric coated tablet. The enteric coating is a valuable and necessary supplement to the combination as it passes through the stomach and thus prevents the gastric irritation so frequent with many of these prescriptions. The various ingredients are absorbed below the duodenum and patients do not complain of the burning sensation frequently caused by the salicylates. Neither do they have the sharp acid taste which ordinarily accompanies the taking of theobromine.

We have studied the properties of this theobromine sodium salicylate-calcium lactate-phenobarbital combination in a series of various types of cardiovascular cases. A few of these are quoted briefly in order to illustrate the effectiveness of cardiovascular sedation when employed with the usual heart drugs.

Case 1. Miss A. B. V., white, college girl, age 21. Long history of rheumatic heart disease and typical signs of advanced mitral stenosis. During her high school career, she attempted to engage in athletics and was in fact a star basket ball player. During one of the games, she was seized with an attack of acute pulmonary edema and had to be hospitalized for a period of three weeks. She had the usual signs of congestive failure seen in the young adult types of mitral stenosis. The lungs were filled with moist râles, the liver was greatly swollen, and there was some ascites but no pretibial edema. She had a normal sinus rhythm but the rate was rapid and regular at 116 beats per minute. The electrocardiograms interestingly enough showed very little pathology but the orthodiagraphic x-ray studies of the heart showed it to be markedly increased in size with a typical mitral configuration. The vital capacity tests were somewhat decreased and the blood pressure levels were rather low (systolic 90 mm. and diastolic 64 mm.). She had been a very active student, engaging in all of the scholastic activities, and her confinement to bed made her distinctly apprehensive. She was digitalized with extreme difficulty, vomiting even with the first dose. Various sedatives were used with indifferent success. She recovered, however, and subsequently was admitted to college. One day, while rushing to make a class for which she was late, she once more collapsed and was taken home in the second attack of pulmonary edema. When seen this time, she presented a picture perhaps similar to the one previously described but in addition, she was now, as her mother described her, "a bundle of nerves." The theobromine sodium salicylate-calcium lactate-phenobarbital combination was given even before the digitalis; one tablet was given every four hours. The calculated dosage of digitalis was then administered and the recovery was prompt and unexpectedly satisfactory compared to her previous attack. The sedation therapy was continued, one tablet a day for some months after she returned to college; and she herself stated that "somehow it seemed to make her feel stronger."

Case 2. M. E. R., man, age 51, a worker in a busy law office; referred to us for high blood pressure of which he was unaware until rejected for life insurance. The patient was of the underweight, hyperirritable type, fidgety, and agitated. He complained of insomnia but thought that it was familial. He had the usual gastrointestinal symptoms of the busy man who has no time to eat. After his rejection by the insurance company, he became more and more apprehensive and, on reading in the paper of the sudden death of a friend from heart disease, he became panic stricken and had an ill-defined "attack" in his office. When we saw the patient, he said that he was very weak and had peculiar pains around the heart. His blood pressure was found to be systolic 210 mm. and diastolic 100 mm. The heart sounds were of good quality and the pulse was about 80 beats per minute. The heart did not appear to be enlarged to percussion and the remainder of the physical examination was more or less negative. Subsequent electrocardiograms showed a moderate left axis deviation but no evidence of coronary pathology. Urine and other laboratory studies revealed little of importance. The patient seemed to be well compensated but had some dyspnea on physical effort. General cardiovascular sedation was definitely indicated at this time and he was placed on one tablet of the combination mentioned above every three hours for five doses a day. With a few days' rest in bed, a proper diet and bowel regulation, his blood pressure fell to systolic 160 mm. and diastolic 90 mm. He was permitted to return to his work, taking one tablet three times a day after meals. This man was seen from time to time for the next eight months and although his blood pressure occasionally went as high as 180, it never reached the high level seen the first time.

Case 3. J. A. B., man, age 60, retired book dealer; overweight, with an occasional trace of sugar in the urine which was readily controlled by diet. This patient had been complaining of anginal pains for about fifteen years and had been an inveterate user of nitroglycerin, which he carried with him at all times. He had tried many remedies of the aminophyllin series but had to abandon their use because of the violent gastrointestinal reactions which he always suffered. When seen by us the first time he had confined his medication to nitroglycerin, which he was taking as often as eight or nine times a day. The only interesting and pertinent findings in this case were the electrocardiograms, which showed significant R-T segmental changes in the first and second leads as well as in the transthoracic leads IV, VI, and VIII. His blood pressure ranged around 120 to

130 systolic with the diastolic from 80 to 90. The heart was slightly increased in size and there were definite aortic changes. The laboratory data were negative with the exception of an occasional trace of sugar in the urine. His blood sugar levels never rose over 152 mg. This patient was immediately placed on two tablets of the sedative combination three times a day and notwithstanding his prejudice against the phenobarbital and theobromine group, he reported at the end of the first week that he was using considerably less nitroglycerin. He continued to make a definite symptomatic improvement and at the end of the month had given up the use of nitroglycerin entirely. He was then taking only three of the tablets a day and he said that his anginal attacks only occurred now after severe physical or mental strain. This patient has now been under observation for almost a year, during which time he has had only three real anginal seizures which required nitroglycerin. He continues to use the sedative combination when necessary.

These cases have been selected as illustrative of the three types of cardiac patients who require prolonged and continuous sedation. The first girl represents the group of young rheumatic cardiac cases who complain of palpitation and peculiar precordial symptoms. They have been admonished by their medical advisers and parents so often about what will happen to them if they overexert their hearts that they develop true anxiety neurosis. Such syndromes do not seem to respond to pure cardiac medication but these patients obtain considerable reassurance as well as relief from a well-balanced sedative such as the combination just described, especially when given over long periods of time.

The second patient with the hypertensive syndrome is a familiar individual in every doctor's office. The agitated business man who learns of his hypertension immediately develops a complicated and difficult cardiac neurosis. Here, too, proper sedation may be fruitful in dissipating most of these symptoms. Regardless of the etiologic background of the hypertension, most cases will feel definitely better when taking an effective cardiovascular sedative under careful and periodic supervision.

The third case is illustrative of the large number of anginal sufferers who sooner or later abandon all other remedies and resort to large doses of nitroglycerin with its associated bad effects. Here sedation is invaluable as it lessens the need for the drug by preventing the emotional upsets so frequently found in such patients. By rendering the patient's life more serene, his anginal attacks are less frequent and a happier outlook is maintained.

In conclusion, the need for a suitable cardiovascular sedative to be given over long periods of time is well recognized by all practicing physicians. The objections to many of the sedatives employed are obvious; on the other hand, a happy combination like that presented in the enteric coated theobromine sodium salicylate-calcium lactate-phenobarbital tablet may do more to make the cardiac patient comfortable than even specific remedies themselves, but given in conjunction with digitalis, aminophyllin, or nitroglycerin, it definitely enhances the value of these time-honored medications.

4 West 75th Street.

SUCCESS DWELLS IN THE SILENCES

With a background of family practitioners, I have, by the fall of the dice, come to lead a life different from theirs, not so sequestered as that of some, but sufficiently so to let me estimate the recompenses and weigh the satisfactions which come from an existence of the two kinds. Certainly the self-sacrificing career of the practicing physician, respected and beloved of his community, is no less perhaps even more, character making and ennobling than the secluded life of a pure laboratory worker, whatever be the importance of his researches and discoveries. In either case, "success dwells in the silences though fame be in the song."—Harvey Cushing.

BOOKED FOR A FALL

Some doctors have the conception that a medical library is a place where some one can be found who will prepare a list of references with which to embellish their compositions.—Harvey Cushing.

Rectal OBSTRUCTION

CHARLES J. DRUECK, M.D.
Chicago, Ill.

Rectal obstruction is a condition that may be encountered at any time of life as a congenital malformation at birth, a kink in childhood, a diffuse inflammation in adult life, or a neoplasm in the bowel wall in advanced age. Obstruction is, of course, always a relative matter; a disproportion between the power of expelling the feces from the pelvic colon and rectum, and the resistances to that force. So many causative factors enter into the production of obstruction of the bowels, and the domination of the clinical picture by one symptom varies so much according to the personality of the afflicted one and according to the area of bowel involved, that volumes have been written on this subject.

Inefficient Powers of Defecation

Inefficient powers of defecation are to be suspected when constipation dates from pregnancy, or is associated with ascites, large abdominal tumors or obesity. It is often easy to ascertain the condition of the abdominal muscles by simple palpation in the horizontal position; and during the examination the discovery of a movable kidney or a dropped liver would also suggest that the abdominal muscles are weak. The patient should next be told to raise her head from the couch; the recti muscles contract and their strength can be ascertained, and any separation between them recognized. Finally, the patient should be examined standing up; when so standing bulging of the abdomen below the umbilicus shows that visceroptosis is present and that the abdominal muscles are weak. The patient often complains of abdominal discomfort which is relieved by lying down or by pressing the lower abdomen upwards.

In all cases in which a woman, whose bowels have previously been regular, becomes constipated after the birth of a child, the condition of the pelvic floor should be investigated, as well as that of the abdominal wall. The anus is normally slightly retracted; the retraction is increased and the anus moves slightly forward when the levator ani muscles are contracted by making the movement which is required when an attempt is made to restrain a commencing defecation. If they are weak, the retraction in the condition of rest is absent or diminished and, on contracting the levator ani muscles, the retraction and forward movements are slight or absent. On straining, the whole perineum projects further than it should do, and in severe cases the uterus may be more or less prolapsed; in such cases no further evidence is necessary to show that the dyschesia is partly due to weakness of the levator ani muscles.

When constipation is present in asthmatic or very emphysematous people, it is partly due to the fact that the great rise in intra-abdominal pressure required for defecation cannot be produced by contracting the diaphragm, as the latter is already as low as it can go.

Abnormal Resistances to Defecation

Abnormal resistances to defecation are of two types: 1. functional obstruction, and 2. organic obstruction. The latter strictures are of two types, benign and cancerous. In every case of constipation that does not promptly yield to ordinary measures a digital examination of the rectum should be made, and in cases of doubtful origin the rectum and pelvic colon should be examined with a sigmoidoscope.

Stricture of the rectum affects females more frequently than males. Wallis (1) says five or six times as frequently. Poelken, who collected 215 cases reported in the literature, notes

that 190 were women and 25 men, or 86 per cent were women. Hartman (2) reporting 86 cases, met in a general surgery practice, noted that 70 among his patients were women. Rosser (3) finds the frequency of the so-called benign strictures to be ten times that of the malignant strictures offering a diagnostic problem because of their annular nature and similar location.

Etiologically strictures may be classified as

1. Congenital
2. Spastic
3. Traumatic
4. Chemical
5. Inflammatory
    a. amebic
    b. Chronic ulcerative colitis
    c. Lymphogranuloma inguinale (proctitis obliterans)
6. Malignancies

In form these stenoses may be

1. Annular—like a ring about the rectum

2. Tubular—where from one to two and a half inches of the rectum is involved in its entire circumference and in all of its coats.

3. Linear—where a cicatricial or fibrous deposit invades but part of the circumference.

4. Spastic—violent spastic contraction of the sphincter muscle due to painful lesions in the anal canal.

Any of these may produce large or small calibered stenoses even to actual obstruction of the rectum. Obstructions which allow but a small channel past them produce well known and easily diagnosed symptoms, but minor obstructions which cause but a moderate degree of stenosis are constant sources of neuralgic and reflex symptoms which may be difficult to relieve. Small cicatricial or connective tissue deposits in the walls of the rectum are constant sources of irritation because of the friction produced by the passage of fecal matter over them. It is not necessary that the caliber of the canal should be so constricted as to form an obsstruction in order to produce irritating symptoms.

Congenital Stenosis of the Anus or Rectum

Imperforate anus is one of those conditions that is only occasionally seen; but if complete occlusion exists, it must be promptly and fully appreciated and quickly remedied or we lose the baby. The frequency of finding anorectal malformations varies with different statisticians. Moreau saw but 4 cases in over forty years experience in the maternity hospital at Paris. Couty in Havre saw 3 cases in 3500 confinements, while Zohre in Vienna saw but 2 in 50,000 maternity patients.

Development of the Rectum and Anus

A review of the embryological development of the rectum and anus will help us better to understand the various congenital malformations, although we do not know why these disturbances occur.

The embryonic intestine is developed from the hypoblast and the mesoblast. The splanchnopleure enfolds a portion of the yolk sac (archenteron). As development proceeds, this gutter is constricted from the yolk sac anteriorly (this forming the oral culdesac, or foregut); and posteriorly, to form the caudal culdesac or hindgut. From the hindgut is derived a part of the ileum, the colon and the rectum.

The hypoblast forms the mucous membrane, while the mesoblast forms the muscular, peritoneal and glandular structures. The epiblast at these ends later invaginates and ultimately breaks through the oral culdesac to become the stomodeum and at the caudal end to be the anus.

An outgrowth of the posterior portion of the yolk sac, called the allantois, is carried back together with the wolffian ducts, to empty into the dilated portion of the hindgut, called the cloaca. Thus the cloaca receives the secretions of both urinary and digestive tracts.

Cloaca

The cloaca is the dilated portion of the hindgut below (caudal to) the attachment of the allantois. Later the cloaca is divided into two parts, the larger anterior part becoming the genital and urinary organs, the posterior portion being the enteron, or rudimentary rectum, which is still closed.

The division of the cloaca into the

urogenital sinus and the rectum takes place in embryos of about 16 mm. in length. After this separation has taken place the posterior portion of the cloacal membrane persists as the anal membrane and occludes the rectum at its lower extremity until the embryos are about 33 mm. long (8th week of fetal life). This cloaca as it develops pushes aside the surface of the body until a thin cloacal membrane is left.

A transverse connective tissue septum (urorectal) now divides the cloaca into a dorsal (rectal) and a ventral (allantoic, or urogenital) portion. This septum descends between the allantois and the hindgut until it meets and fuses with the cloacal membrane to form the rudimentary perineum.

Failure of these two structures completely to fuse accounts for recto-urinary malformations.

The anal canal forms about the fourth week by an involution of the epiblast called the proctodeum, which compresses the outer and inner layers of mesoblast until they are absorbed, the hindgut and the proctodeum thus meeting. The absorption of this septum fuses the rectum and anus. In adult life this zone corresponds to the pecten. Sometimes this involution of the epiblast does not occur and there is no anus, or it fails to connect with the rectum, imperforate rectum resulting.

This fusion of the anal and rectal canals occurs on the anterior portion of the hindgut, and thus leaves a culdesac which is later absorbed, leaving the coccygeal gland, or gland of Luschka, which remains in adult life. Imperfect absorption of the culdesac leaves a congenital posterior rectocele. It is also from this posterior culdesac that dermoid cysts about the coccyx develop.

Many minor malformations go unobserved until later life and often are not found at all. In the case reported below the individual did not know until he reached adult life that he had a malformation.

Case 6 (Clinical Records)

Age 61, has had difficulty in defecation all his life. As a boy he noticed that his fecal evacuations were of much smaller caliber than those of his playmates. He has always used laxatives as long as he can remember, and by their daily use is reasonably comfortable, but any change in his diet or living which occasions a formed stool causes intense suffering, sufficient to make tears flow. The feces are, therefore, always voided soft or liquid. No bolus larger in caliber than a lead pencil can be voided without pain.

Examination

With the patient in the lateral position and the buttocks widely separated it is impossible to pull open the anal ring. My little finger can be introduced, but it causes so much suffering and restlessness as to make the examination unsatisfactory. An anal dilator, ⅝ inch in diameter, can pass through the anal canal, but a larger instrument (½ inch) causes much pain and cannot pass. A sufficient examination can be made to assure us that the deformity is limited to the anal canal and that the rectum is of full capacity.

Treatment

A posterior division of the narrowing will gain much increase in caliber. The anus was anesthetized by infiltration and under the guidance of the left index finger a blunt-pointed curved bistoury was introduced past the narrowing and a deep incision made in the posterior raphe. Two fingers were then easily introduced through the anal canal into the rectum and a tubular proctoscope an inch in diameter was also easily passed. A quantity of inspissated fecal masses was removed at the time of operation and he continued to void other balls for several days.

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58 East Washington Street.

Clinical Notes

Carcinoma OF THE LARYNX

With Postoperative Involvement of Cervical Lymph Nodes

G. ALLEN ROBINSON, M.D.,
New York, N. Y.

and

FREDERICK H. LUTZE, M.D.,
Brooklyn, N. Y.

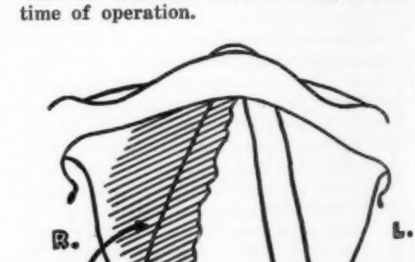
THE following is a case report of a patient with carcinoma of the larynx treated by a combination of surgery and radiation.

Timothy F., male, aged 52, was referred to our clinic from the New York Eye and Ear Infirmary in November, 1936, for postoperative x-ray therapy. His family history was essentially negative and in his past personal history a cough for about a month previous to the operation and dyspnea on exertion for the past eight or ten years are worthy of note.

In June, 1936, the patient developed a hoarseness and sore throat which became persistent and were treated locally at the Kings County Hospital, Brooklyn. The condition did not improve but gradually grew worse as he had difficulty in talking and swallowing. In July a laryngoscopic examination was done in the Kings County hospital and a tumor involving the right vocal cords and arytenoid area was found. By September the patient could not even drink water and on September 17, 1936, he was admitted to the New York Eye and Ear Infirmary in Dr. J. S. Hanley's service. On September 25, a complete laryngectomy was successfully performed by Dr. John Miller. He was discharged on October 20, 1936, the wound completely healed and respiration being carried on through a tracheotomy opening.

Presented as a case report, at intervals, to the senior medical class at New York Medical College to show radiation effects.

WHEN we first saw the patient we found him in good physical condition, having gained ten pounds in weight. He had an occasional ventricular extrasystole. The blood pressure was 110/70, pulse rate 64. A good postoperative scar was present in the neck with no enlarged cervical nodes. The laryngeal examination just previous to operation had shown a growth involving the right false vocal cord up to the true cord, which showed a ragged edge with infiltration in the right arytenoid area. The left side of the larynx was normal. There were no metastastic nodes found at the time of operation.



Laboratory findings preoperative: X-ray of chest and sinuses—negative; Wassermann — negative; urine — negative; Blood—Hg 95%, 4,600,000 red cells, leukocytes 11,250, 64% polys, 32% lymphocytes, 4% mononuclears; bleeding time

2½ minutes, clotting time 6½ minutes; electrocardiogram—premature ventricular contractions. Postoperative: Blood—Hg 75%, 3,760,000 red cells, leukocytes 14,500, 70% polys, 25% lymphocytes, 4% mononuclears. Postoperative diagnosis of tumor was epidermoid carcinoma of the larynx (Grade II).

On November 21, 1936, x-ray therapy was started and 200 r units (including backscattering) were given every other day alternately to the right and left sides of the laryngeal area. Other factors, 200 Kvp—50 cm. focal skin distance, 1 mm. Al., 1 mm. Cu. filters, 10 x 10 cm. field. The patient at this time weighed 156 lbs. Treatments were given until 2000 r units had been given to each side, producing epilation and mild erythema. At the end of the series the patient's general health was excellent and his weight had increased to 162½ lbs. There was no sign of any indurated areas at the site of operation and no glandular involvement.

On May 19, 1937, he presented himself at the clinic complaining of a tender fluctuating swelling below the angle of the right jaw. The mass was 2 x 2 x 1½ cm., and of six weeks duration, enlarging rapidly the past two weeks, and being tender the last week. On May 20, he was readmitted to the New York Eye and Ear Infirmary, where he remained until May 29. During his stay in the hospital the mass was aspirated several times with the relief of pain. Culture of the fluid showed no growth on several occasions and on one occasion a few staphylococci. The diagnosis made was necrosis of cervical extension of malignant tumor with sterile abscess formation. Incision was advised against and further x-ray therapy recommended. On June 2, 1937, he came to us again for further x-ray therapy. The mass was no longer fluctuating but hard and sore to touch. X-ray therapy was instituted over the area of the mass using a 7 cm. port, treatment every other day, 200 r per dose. A total dosage of 3600 r units was given to the area. The mass at the end of this series had practically disappeared and no soreness was present. The patient's weight had increased to 170 lbs.

On August 24, 1937, examination of patient shows no active carcinoma in the lymph nodes. There are no drainage sinuses; the skin is in good condition with little evidence of scarring. The case suggests that radiation of the entire lymph drainage area in carcinoma of the larynx should be done both pre- and postoperatively.

40 East 61st. Street, New York.
891 Lincoln Place, Brooklyn.

DOSAGES OF THEELIN IN OIL

August A. Werner, Grey Jones, John Roberts, G. O. Broun, Charles H. Neilson and Norman O. Rothermich, St. Louis (*Journal A. M. A.*, Sept. 25, 1937), find that theelin in oil stimulates development of the sex-related structures of the human female, producing changes in the breasts, gross appearance of the vagina, with increased mucous secretion, and growth of the endometrium and vaginal mucosa in dosages as low as 5,000 international units. Definite changes in the vaginal smears were noted with dosages of theelin in oil as low as 10,000 international units. Vaginal smears would appear to be a less delicate index of theelin administration than uterine mucosal specimens. Relief of symptoms of castration was obtained with dosages as low as 5,000 international units, which is insufficient to produce the full follicular phase in the vaginal smears. This experiment proves that dosages of 5,000 international units of theelin in oil, when the element of time is considered, will mitigate or relieve the symptoms of castration but at the same time will stimulate development of the endometrium sufficiently to cause uterine bleeding when discontinued. Theelin in oil is much more effective than theelin in aqueous solution. When administered intramuscularly in the human being, smaller dosage and less frequent intervals of injection produce more rapid and more marked effect on the endometrium and vaginal mucosa. The evidence seems conclusive that the large dosages of theelin advocated by some (from 30,000 to 50,000 rat units) as necessary to produce the full interval phase of the endometrium are grossly excessive.

MENTAL HYGIENE NOTES

CASE NOTES IN EXTRAMURAL *Psychiatry**

FREDERICK L. PATRY, M.D.,
Formerly Psychiatrist State Education Department, University of the State of New York
Albany, N. Y.

CASE ONE

Hypomanic Reaction In A 43-Year Old Single White Female

THE complaint problem as recorded by her employer was loss of weight, distractibility, and undependability for three months. The patient stated she had lost sixteen pounds since July, 1937, and that she experienced a dull, smothering feeling over the heart region when she took a deep breath, but otherwise admitted of no difficulties. Insight was superficially lacking.

She carried on efficiently at her work of ——— operator (27 years service with her company) until July, 1937, when "family friction" began. The patient accused her sister of wanting her to marry someone for whom she did not care. "I gave up another man who drank." She also complained that she did not get enough to eat—"I could eat the dishes off the table". Sleep "good"; spirits "fine"; strength—"plenty of energy; I can walk two miles without tiring"; no daily variation—"I feel good all day, but get a little tired the last hour of work".

There is a history of two previous mental illnesses. The first affective attack occurred in December at the age of 17, soon after entering employment, and was precipitated by the stress and strain of an adenoidectomy followed by a change in work with prolongation of hours. Her complaint at the time was "poor sleep, inability to relax, weary, tired out, no feeling, under tension, the sidewalk seemed wavy and appeared to hit me in the face". This circumscribed attack lasted two months.

The second attack occurred in December at the age of 35, precipitated by increased mental strain through change of working hours. The onset was sudden: "I slumped, went off, felt hot things and went wobbly like I were intoxicated". She spent from January to March in a State Hospital, but did not return to work until June. She lost weight during the illness and was elated. ("They called me Lady Astor at the hospital"). Except for "colds" and sore throats, she has carried on adequately in her work until present illness.

FAMILY history revealed a father whose personality make-up was characterized by "over-work, over-energetic". He died of a "stroke", age 79. A sister, 39, lives with her husband and a 20-year-old son in the same house as patient and her mother. There has been no

* In view of the fact that the general practitioner is the "psychiatrist-in-chief" in most cases of mental illness of varying degree (it has been estimated that 40 to 80 per cent of his practice is concerned with functional types and part-components of nervous and mental illness), it is desirable that he improve his understanding and ability to handle them. In this series of "Case Notes in Extramural Psychiatry", the writer will utilize only pertinent facts to illustrate types of frequently met personality disorders and mental deviations which the general practitioner should adequately understand, and for the most part treat, either alone or in conjunction with a qualified psychiatrist.

abnormal friction prior to the patient's present illness.

Physical and laboratory examination facts negative except for slight elevation in blood pressure, 148/96 (probably emotional tension aggravated). Athletic habitus, five feet nine inches tall. No menstrual irregularity.

The facts of the mental examination jibed with the history of the present illness. She was over-sociable and friendly, keenly observant, anxious to tell her story, hair somewhat straggly. Besides the increase in total behavior, there was flightiness of ideas with the usual overproduction. Emotionally, there was a mixture of anxiety, elation and tenseness. She felt "fine". "When I am sad, I don't cry, I just lose weight." The content of thought was colored by facetiousness and expansiveness or ego inflation. Spontaneously: "I never miss a trick—I saw Mrs. Roosevelt on the train this morning." Again: "The good die young. I'll die when my time comes. The devil hasn't the pitch hot enough yet."

Comment and Recommendations

THIS patient illustrates characteristically a circumscribed affective reaction of the hypomanic type with anxiety, tension, and depressive features. Although she superficially appears without insight into her condition (nevertheless realizing that her recent behavior, friction at home, inefficiency symptoms are a part of a sickness), she is responsive to medical advice.

This type of mental illness occurs in persons of a "cyclothymic" personality, those given to mood swings and who are not emotionally so solidly integrated as the average. Being relatively fragile emotionally, they stand unusual or excessive mental stress and strain poorly, and thus should be spared such experience. Thus, prevention of attacks may be brought about, particularly if the emotionally sensitive pre-psychotic individual is tactfully and gradually prepared to withstand necessary or factual changes in his 24-hour program of living.

Obviously, this patient is too sick to continue at work. By removing her from work and other demands which she is inadequate to carry with ease at present, the course of the hypomanic swing may be shortened, and a full-blown manic reaction (which may be of several months' duration, and requiring hospitalization) may be aborted.

The time factor must be respected, particularly in any affective disorder. To be sure, "narcosis therapy" may shorten the duration of manic excitements (and also certain types of schizophrenia), but such treatment can be given only in a hospital which has available specialist direction, including expert nursing care.

CERTAINLY, this patient must be kept under close medical supervision, and in an understanding environment. If removal of friction at home and cooperative understanding can obtain there, the patient may be allowed to remain in this setting. The patient has one week's vacation due and wishes to spend it at a boarding home or private hotel in Atlantic City. However, such a course lurks with dangers. Hypomanic persons are not only over-excitable and over susceptible, but are over-stimulated sexually. This may lead to unfortunate erotic entanglements. Poor judgment coupled with euphoric and grandiose trends may lead the patient to spend her money lavishly and unwisely, or to undertake unfortunate business transactions. Moreover, since the energy quotient is excessively high and aggravated by aggressivity and expansiveness, exhaustion through unrealized over-exercise (physical or mental) may become a serious problem. Stimuli of all sorts should be reduced to a minimum; a quiet room with the exclusion of social contacts is desirable at this phase of the illness. Quiet, simple interests and activities are indicated as channels of outlet for energy push, and to crowd out unwholesome ideas and trends.

IN view of the patient's aversion to treatment in a state mental hospital (although in retrospect she realizes that prior treatment there was indicated), and lack of money for private sanitarium care and treatment, under adequate medical supervision, she may be carried along for the time being at a boarding home, or with understanding and cooperative friends or relatives. The family physician would be well advised to seek the assistance of the Social Service De-

partment of the State Hospital where she was last treated. A visit to the home and patient by a psychiatrically trained social worker may do much to remove conflicting factors, and to offer the advantage of hospital treatment at the first moment it may be indicated. Moreover, periodic consultation with the state hospital clinic psychiatrist (extension clinics are held in various centers served by the state hospital area) may prove helpful in assisting the patient in making a satisfactory extramural adjustment. It is my feeling that most private practitioners are not aware of, or do not capitalize, available state hospital psychiatric and social worker services. Mental hospitals, as well as the psychiatrist in private practice, throughout the state stand ready to advise and cooperate with you in sharing the perplexing problems of mentally maladjusted patients. Commitment, if possible on a voluntary basis, is often necessary.

Hypnotics, in view of the probable long-term nature of the illness, should not be prescribed routinely. Warm baths are often helpful in reducing tension and in promoting sleep.

Prognosis for recovery is good.

PROGRESS IN SOCIAL HYGIENE

Demands upon the American Social Hygiene Association for its services have increased so sharply during the past six months that this national voluntary organization against syphilis and gonorrhea must raise at least $300,000 annually to do its work.

Activities resulting from "Social Hygiene Day," promoted by the Association and observed nationally in February; from Surgeon General Parran's attack on the venereal diseases; and from the wide publicity in newspapers and magazines and by radio have stimulated an unprecedented volume of requests at Association headquarters, 50 West 50th Street.

Groups and individuals throughout the country, aroused at last to the dangers from syphilis and gonorrhea, have been pouring in requests for programs of community action, consultant service, surveys, speakers, films, mechanical lectures, pamphlets, exhibits and statistics. The volume of requests and inquiries has tripled since syphilis and gonorrhea became mentionables in normal conversation and in the public prints.

To organize the Association's appeal for contributions and memberships, Donald C. Dougherty of Cleveland has just been appointed an Associate Director on the national headquarters staff. Mr. Dougherty has been a specialist in institutional money-raising since 1920, with thirty campaigns for funds furnishing his experience for the social hygiene work. In 1927 he organized and managed the campaign which provided more than $8,000,000 for the University Hospitals in Cleveland.

Dr. R. H. Bishop, Jr., also of Cleveland, is chairman of the Association's special finance committee. He was chairman of the $8,000,000 hospital campaign and Mr. Dougherty his assistant. Recently he served as chairman and Mr. Dougherty as secretary of the Ohio Committee of the A.S.H.A. Some of the Ohio activities are to be used as a pattern in other states.

LOOKS GOOD

A bill is before the Colorado legislature providing for sterilization of all defendants who plead insanity and gain their point when charged with murder or sex crimes. It looks good to this editor.—*Nebr. State Med. Jour.*

"Louis Pasteur", detail of a WPA mural panel depicting the achievements of the great scientist, which is one of a series entitled "Men of Medicine" executed by Arthur Faber under the direction of the WPA Federal Art Project for the Willard Parker Hospital.

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Miscellany

Sedatives and Tonics

HARRY NELSON JENNETT, M.D.
Kansas City, Mo.

● The city of St. Louis is wrestling with the smoke-nuisance and the abatement thereof, if any. The mayor vociferously has ordered the smoke to cease belching and desist.

—I hope they don't carry the question up to our County Medical Society meetings, unless they want it "cured", if you know what I mean.

● "Little girl, have you a papa and mama?"

"I should say I have!" she replied, "I have two papas by my first mama and three mamas by my first papa."

—Quintuplet parentage.

● "Once in Forty Million"—

Two girls, the same age, born hundreds of miles apart (Michigan and Ontario), on the same day, Sept. 22, 1920, have the same name, Pauline Taylor; they look alike, dress alike and think alike. They are not related and they never met until in intermediate school in Detroit, three years ago, and now they are inseparable.

—Some Siamese twin genes of duplicate reincarnation separated in the chromosomes. I bet you.

● Pauline Taylor, of Roanoke, Va., who in the recent news headlines is known as Peggy Garcia, married at the age of 12½ years, later sued a musician for ½ million dollars for things he did illegally *a priori* or somewhere, if any.

What's in a name, Hollywood?

● A local home building propaganda item is headed, "Proper Estimates of Costs Can Only be Obtained From Local Builder."

—You mean proper. Like all get out! Like proper estimates of "Costs of Medical Care Committee." Let me illustrate. Like the estimated costs of a builder's first baby, say, to-wit: "Oh," the doctor says, off-hand, "I'd say, hospital and doctor bill, and all, will run around $100." Then later the proper audit for the baby case comes in, viz., namely, to-wit:

Hospital ..	$75.00
Laboratory	15.00
Anesthetic	15.00
Cesarean	150.00
Blood transfusion	25.00
Special nurse ...	35.00
Total (1)	$306.94 plus tax

(2) Incidentals: flowers, telegrams, long distance calls, R. R. fare for mother-in-law, maid service, nurse, headache tablets, new half-soles, extras and sundries, meals out, aspirin, basinette, bathette, box cigars, headache tablets.

—Just like architect's plans, but proper estimates of costs can only be obtained from the adding machine.

● In Newark, N. J. (as reported in *Time* newsmagazine of February 22, 1937), "in 'Dr.' Harley's place", in a respectable neighborhood, in an eleven room house or abortorium or Inn, in an anti-birth insurance scheme, in the sum of $2 a month, in advance, "Dr." Harley guaranteed that no customer need have a baby, and took the client's name, money, and picture in the nude, to keep the record clean. In a hearing before the judge it all came out. In the sentence pronounced, "Dr." Harley is in for 7 to 15 years, in the penitentiary, in the third place, but "in 'Dr.' Harley's place" "the doctor is out." And of the 2,000 insured guests still insured in a manner of speaking they will have to have it out with the "Dr." as seemeth comely.

—Life has its ins and outs. Kinda. And while the "Dr." is indefinitely in, the patient is out, definitely.

● For the first time in medical jurisprudence a young prisoner has been brought into court for an offense against a very old statute, and sentenced to prison for one year. It seems that a young mother in Hackensack, N. J., knowing she had syphilis, married, transmitted the disease to her husband and her child, and stubbornly refused treatment.

—Concluded on page 584

Economics

Department Edited by Thomas A. McGoldrick, M.D., LL.D.

OPENING WEDGES

WRITING about the "Cooperative" recently organized among the 117,000 federal employees in Washington, D. C., under Social Security auspices, the *Pennsylvania Medical Journal* expresses the following opinion:

> Probably the crowning impertinence of this "opening wedge" lies in the statement made by the management of the Cooperative to the effect that no physician thus contracting for the disposal of his services may be excluded from the medical societies of the District of Columbia. This is certainly a disquieting and discomfiting demonstration of the ends to which so-called New Deal experiments may go in the conversion of private physicians willy-nilly into federal officers and private medical practice into a *new* health system.

In Washington, government employees far outnumber other employed groups. When it is remembered that high salaried people are included along with the low salaried in this scheme to provide general medical services, on the basis of a monthly pay-envelope deduction, one wonders what the fate of private medical practice in the District of Columbia is going to be, or in the country at large, for that matter, since Washington is only the proving ground from whence expansion is planned.

The relation of this thing to the political spoils system is quite obvious, and medicine is hitched to it in humiliating fashion.

The *Journal of the American Medical Association* takes the position that the whole scheme is unlawful (October 2, 1937). "An organization cannot be lawfully incorporated to effect unlawful ends, and the certificate of incorporation filed by Group Health Association indicates clearly that one of its purposes is insurance, which cannot be lawfully carried on under the provisions of the code under which the association professes to be incorporated, and its other purpose, the practice of medicine, is unlawful if carried on without a license such as the association does not possess and cannot obtain either in the District of Columbia or in any state in which the association proposes to practice." Such a position, which is sound, would ordinarily give some hope of a remedy, but a ruthless driving force is inherent in "the current governmental struggle via social security legislation toward regimentation and the sustenance of political supremacy."

The offices of this outfit are in charge of Henry R. Brown, M.D., formerly of the Veterans' Administration. It is assumed by the *Journal of the American Medical Association* that no free choice of physicians will be permitted to the 2,500,000 beneficiaries, made up of federal employees and their dependents, who, scattered all over the country, will ultimately be included in the plan. "The original certificate filed by Group Health Association in the office of the Recorder of Deeds of the District of Columbia makes eligible for membership all 'employees of any branch of the United States Government Service others than officers and enlisted men of the United States Army and Navy.'"

Another "opening wedge" is looming up in the shape of a health-insurance amendment to the Social Security Act which Senator Wagner is reported to be preparing. It is supposed that this amendment, if introduced, will call for a payroll tax of about 1 per cent, to finance medical and surgical care for workers.

When the Social Security Act was being drafted by the President's com-

—Concluded on page 584

Cancer

Charles William Hennington, B.S. (Rochester), M.D. (Hopkins), F.A.C.S., *German Literature Editor*, and Umbert Cimildoro, A.B. (Cornell), M.D. (Rome), *Italian Literature Editor*.

Department Edited by
John M. Swan,
M.D. (Pennsylvania), F.A.C.P.
EXECUTIVE SECRETARY, NEW YORK STATE COMMITTEE OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

THE ENDOCRINE RELATIONS OF CANCER

VI. THE TESTICLE

IN 1935 there were 18.600 deaths from cancer and other malignant tumors in the State of New York. Of these sixty-two, or 0.33 per cent, were due to cancer of the testicle (17).

Hinman and Benteen (6) have investigated the frequency of testicular tumors. In 39,359 males admitted to the Hospital of the University of California in twenty-two years, between June 1, 1913, and June 1, 1935, there were 155 cases of undescended testicle (0.39 per cent). There were forty cases of testicular tumor (0.1 per cent). Three of these forty testicular tumors were found in the 155 sryptorchids (1.9 per cent). In other words, tumor of the testis is found about twenty times as often in patients with undescended testicle as in those with normally placed organs.

Malignant tumors of the testicle, apparently, are of embryonal origin and may be considered to be examples of teratomata. Acocrding to Ewing (2), there are three main varieties of teratoma of the testicle: Adult embryoma, embryoid or mixed tumor, and embryonal malignant tumor. Besides these tumors, fibromata, adenomata and growths, resembling the adrenal body are found. The teratoid tumors usually contain cartilage and/or involuntary muscle cells. Some of them contain areas that resemble the chorion and are consequently called chorioma. The embryonal malignant tumors are also known as sarcomata and seminomata.

White and Gaines (24) are of the opinion that the majority of testicular tumors are of embryonal origin and that more than 95.0 per cent of them originate from aberrant sex cells. The tumors are classified by these authors as seminomata, or tumors formed by the multiplication of the interstitial cells lining the seminiferous tubules, as testicular adenomata, fibromata, true primary sarcomata, embryomata, and chorionepitheliomata.

Symptoms and Diagnosis

WHITE and Gaines (24) point out that the chief indication of the possibility of a testicular tumor is furnished by a swelling of the scrotum. Such a finding requires a complete and thorough medical, physical and urological examination, including tuberculin tests and serodiagnostic blood examination for syphilis.

The diagnostic possibilities to be considered in the examination of such scrotal swellings include benign tumor, malignant tumor, hernia, hydrocele, hematocele, and epididymitis. Many testicular tumors have been treated as hydroceles and a long-standing solid hematocele is difficult to distinguish from tumor.

biopsy is, of course, necessary.

Randall and Bothe (21) in the diagnosis of the nature of testicular tumors, require a Wassermann test and a urinary prolan A determination in all cases.

Other symptoms of tumor of the testicle are pain in the lower abdomen and/or in the testicle, frequency of urination, and dysuria.

The Testicular Hormones

IN our résumé of the relations between the follicular hormone and cancer of the breast (15 b), we reviewed the studies of Leo Loeb (11) and his coworkers. In one of his earlier papers Loeb said: "The effect of hormones on the development of cancer is specific; that is, a hormone influences the development of cancer only in those organs to which under normal conditions, it has a specific relation. We may assume that connections similar to that between cancer of the breast and the ovary also exist between cancer of the prostate and the testicle."

The testicular hormones have not received the intensive study that has been accorded to the ovarian hormones. According to Koch (8 a) testosterone, $C_{19}H_{28}O_2$, is the true testicular hormone. Compare this formula with that of estrin, which, according to Lacassagne (10) is $C_{18}H_{22}O_2$. However, the mere enumeration of the molecular structure does not indicate the differences in substances of this character. The position of the hydrogen and oxygen atoms and the radicles on the benzene ring determines the characters of the substances. Two other hormone-like substances have been discovered: dehydroandrosterone, $C_{19}H_{28}O_2$, and androsterone, $C_{19}H_{30}O_2$. Koch considers both these substances to be waste products or intermediates in the sex hormone system.

Koch (8 b) begins a later paper as follows: "Although androsterone and dehydroandrosterone, two substances of androgenic character, have been separated from human urine, very little is known as to the significance of their occurrence and still less as to the fluctuation in the rate of excretion in health and disease. It is generally assumed that these substances are waste products formed from testosterone secreted into the blood stream by the gonads, but it is just as reasonable to expect that one or both of these urinary products may be the precursors of testosterone or that they, or still other androgenic substances, may originate in part in other tissues or be present in our food."

Lower, Engel and McCullagh (13), in a summary of experimental research on the control of benign prostatic hypertrophy consider androsterone to be the active principle of testicular extract. This substance seems to be the same as testosterone. They also refer to the existence of androtin in the male urine.

The Influence of Castration

KARNICKI (7) found that castration increased the growth of tumors resulting from painting the ears of rabbits with tar. If the thymus was removed at the same time that castration was done, there was a notable increase in the tumor growth. On the other hand, intravenous injections of thymus and testis preparations were followed by destruction or disappearance of smaller nodules and decrease in size and softening of the larger ones.

Pribram (19) found that bilateral castration, before tumor transplantation in male mice, checked tumor growth. Even the removal of one testis checked the growth, at least it prolonged the life of the host. If the castration was done after the transplantation had been accomplished, there was no influence.

The Influence of the Injection of Hormones and Testicular Extracts in Male Animals

A. Estrin

Burrows (1 a) reports that injections of equilin and estradiol produced a copious development of acini and pronounced changes in the interstitial tissue of the testis.

Tuchmann (23) found that four subcutaneous injections of 0.4 mg of folliculine (which appears to be another name for estrin) at weekly intervals in a male guinea pig or a male rat were followed by atrophy of the testicles and of the seminal vesicles and the other genital adnexa. The testicles which were covered by a mass of fat, showed as-

permatogenesis. After the injection of oil containing folliculine benzoate directly into the testicle, aspermatogenesis was still more complete. After injection of the right testicle with folliculine the changes in the left testicle and the genital tract were more prominent than those produced by subcutaneoous injections.

Results similar to those obtained after the injection of folliculine were obtained with 1:2-benzpyrene. The local irritation was more marked, sometimes resulting in the total destruction of the injected testicle. The noninjected testicle was completely aspermatogenic. The adnexa of the genital tract atrophied and there was considerable development of the mammary glands.

In the injected animals the thyroid body and the spleen were not affected. The pituitary body hypertrophied to about three times its normal weight. The anterior lobe presented a generalized eosinophilia. The columns of cells had a tendency to arrange themselves in alveolar form, the cavities of which were filled with colloid. The entire organ was very vascular. The author believes that it is legitimate to conclude that the testicular lesions produced by folliculine and other estrogenic substances are the result of the action of the pituitary body.

Raul de Mello (16) grafted ovaries into normal small rats and then joined these animals in parabiosis to castrated male animals. In this way the castrated males were supposed to receive the gonad stimulating hormone which stimulates the testis as well as the grafted ovaries. The animals thus treated presented accessory genital organs larger than those of the normal animals. The author attributes this result to the added action of estrin upon the muscular and connective tissue of the accessory genital glands as well as to the stimulation of the male gonads.

B. Testosterone and Testicular Extracts

KORENCHEVSKY and Dennison (9 a) injected synthetic male sex hormone, androsterone and its diol derivatives, into seventy-nine female rats. They found that in ovariectomized rats these substances exerted a strong influence on the development of the uterus and the vagina; but not so strong as that of estrin alone. They expressed the opinion that there is a cooperative activity between the male and the female hormones, which, by the use of suitable doses, can bring about an apparent restoration of the atrophied uterus and vagina to normal.

In a later paper (9 b) in which they describe the results of injections of testosterone and estrin in 136 animals, they report that the injection of testosterone was followed by changes in the atrophied uterus and vagina similar to those produced by estrin injections.

In other words, the male hormones have some of the important properties of the female hormones. These hormones produce hypertrophy of the atrophied organs.

Testosterone injected alone brought about an incomplete return to normal size and histological structure of the uterus and the vagina.

Testosterone and estrin injected simultaneously in large doses produced changes in the vagina similar to those seen during pregnancy and in the uterus somewhat similar to those seen during proestrus.

Robson (22) found that estrin (or estrus?) and the vaginal changes produced by the injection of estrin were inhibited by the injection of testosterone. He suggests that there may be a direct antagonistic action between the male and the female hormones.

Burrows (1 b) reports the case of a man, aged 79 years, who complained of increasing frequency of urination with dysuria of several years' duration. He had a carcinoma of the right mammary gland, pulmonary tuberculosis and an enlarged prostate. At autopsy a mass was found between the testicle and the epididymis, which was composed of stratified squamous epithelium, in which prickle cells were conspicuous. The growth was thought to have originated from vestigial remains of the Müllerian duct which had been activated by estrin. He points out that estrin has been known to produce carcinoma of the breast and prostatic hypertrophy in male mice.

Lower, Engel and McCullagh (13) point out that a definite pituitary hypertrophy and prostatic atrophy follow castration. Injections of androtin restore the prostate to normal; but apparently do not control the pituitary hypertrophy. Irradiation of the testes and cryptor-

chidism are accompanied by degeneration of the testicular tubles, but not of the interstitial cells, and there is an accompanying hypertrophy of the pituitary. Atrophy of the prostate follows the injection of aqueous testicle extract. It thus appears that the testicle secretes a hormone that inhibits pituitary activity, thus balancing the effect of the gonadotropic hormone. They call this hormone inhibin. Inhibin and the gonadotropic hormone balance each other. If there is a diminution of inhibin, the gonadotropic hormone is increased and, consequently, the testes are stimulated and there is an over-production of androtin and a consequent prostatic hypertrophy. In a later paper Lower calls inhibin, construin.

Gruhzit (5) found that extract of ox testis neither inhibited the growth nor caused regression of the Jensen rat sarcoma.

Prime and Haagensen (20) found that extract of rabbits' testicle had no appreciable effect on the growth of rat sarcoma No. 8, the Flexner rat carcinoma, or the Murray guinea pig sarcoma.

C. The Aschheim-Zondek Reaction

In a review of the Aschheim-Zondek Test in this journal reference was made to the triangular relation between the cells of the trophoblast (chorion), the pituitary body and the ovary (15 a).

Since estrus producing substances have been obtained from the testis, the blood, and the urine by numerous investigators, Owen and Cutler (18) planned an investigation to determine whether or not estrogenic hormones in amounts above normal could be demonstrated in the urines of patients with prostatic hypertrophy or prostatic tumors.

They found that substances which act like the female sex hormone may be obtained from the urine of patients suffering from prostatic disorders; but in practically normal amounts; on the other hand, urinary prolans are not increased in these patients.

While benign prostatic hypertrophy and malignant prostatic changes may result from a long continued mild imbalance of sex hormones, this imbalance is not apparent from the usual bioassays.

According to Zondack (26) chorionepithelioma of the testicle or testicular teratoma with chorionepitheliomatous inclusions lead to a markedly increased production and discharge of follicle stimulating and luteinizing factors. A similar increased secretion may also occur in other testicular tumors occasionally. It is, however, absent in tumors of the dysgerminoma type, and these growths do not contain the gonadotropic hormone. This substance is found in the chorionepitheliomatous areas.

Bioassay

WILLIAMSON and Barry (25) report a case of embryonal carcinoma with lymphoid stroma in a man, aged 26 years. The patient had complained of pain in the right testicle and the right lower abdominal quadrant for two weeks. Orchidectomy and postoperative irradiation were employed. There is no record of bioassay before operation but "a recent examination of the urine showed no Prolan A."

May (14) reports the case of a man, aged 49 years, who complained of a scrotal tumor of six weeks' duration, complicating a left inguinal hernia. The pathologist reported the growth as "an infiltrating carcinoma of a high grade of malignancy." Twenty-two months after surgical removal of the growth and in spite of irradiation, abdominal metastases appeared. After the appearance of these metastases, examination of the urine failed to show the presence of the gonadotropic hormone in "tests graduated to reveal the presence of as low a level as 200 units of hormone per liter." A second bioassay two months later was negative for amounts "in excess of 300 units per liter." The author believes the tumor was a primary carcinoma of the epididymis.

Greulich and Burford (4) report three cases of tumor of the undescended testis in dogs. The tumors were associated with mammary gland changes and changes in the prostate gland similar to those produced by the experimental injection of theelin (estrin).

Bioassay of one of these tumors for gonadotropic hormone and of another for estrogenic hormone was negative.

Zondek (26) is of the opinion that bioassay of testicular tumors furnishes valuable information concerning the nature of the growths.

Treatment

WHITE and Gaines (24) advise surgery only in those cases that show no clinical evidence of metastasis and that give low hormone titers.

Intense irradiation and orchidectomy is the rule. Radical operation, orchidectomy and the removal of the regional lymphnodes, is best suited for the treatment of teratoma.

Randall and Bothe (21) advise preoperative irradiation with x-rays followed by orchidectomy within five weeks after the last irradiation. They say that irradiation alone cannot be relied upon to produce a cure because of the likelihood of the presence of radioresistant cells in the growth. Consequently orchidectomy is mandatory. Irradiation shou'd be widespread in its application. Orchidectomy alone has been followed by 10.0 per cent cures; radical surgery has produced 19.0 per cent cures; irradiation alone has produced 29.0 per cent cures.

Ferguson (3) has stated that the average high radiosensitivity of teratoma testis makes irradiation imperative in these cases.

Summary

TUMORS of the testicle are more common in the undescended organ than in the normally placed organ.

Probably the majority of malignant tumors of the testicle arise from embryonal rests.

The diagnosis of testicular tumors requires tuberculin tests, the Wassermann test, examination of the urine for Prolan A (Aschheim-Zondek test), and biopsy.

Testosterone appears to be the testicular hormone.

Castration increased the growth of tar cancers (Karnicki). Bilateral castration before tumor transplantation checked tumor growth.

After the take of a transplant there was no influence (Pribram). Intravenous injections of thymus and testis extract were followed by the disappearance of small tumor nodules and decrease in the size and softening of larger nodules (Karnicki).

Injections of estrus producing substances produce copious development of the acini of the testicle (Burrows, de Mello); produce atrophy of the testicle and the seminal vesicles (Tuchmann). Testosterone injections produce changes in the genitalia of female ovariectomized rats similar to those produced by estrin injections (Korenchevsky and Dennison). Extract of ox testis has no influence on transplanted sarcomata (Gruhzit, Prime and Haagensen).

Substances that are like the female sex hormone may be obtained from the urine of patients with prostatic disease, but in normal amounts (Owen and Cutler).

If there are chorionepitheliomatous areas in a testicular teratoma those hormones will be found in the urine (Zondek).

Bioassay was negative in cases reported by three authors (Williamson and Barry, May, and Greulich and Burford). One author, however, considers bioassay valuable (Zondek).

A combination of radical surgery and irradiation seems to give the best outlook for relief or control.

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Cultural Medicine

SOME OF THE GREAT MEDICAL LIBRARIES OF THE UNITED STATES

New York Academy of Medicine, 2 East 103rd Street, New York

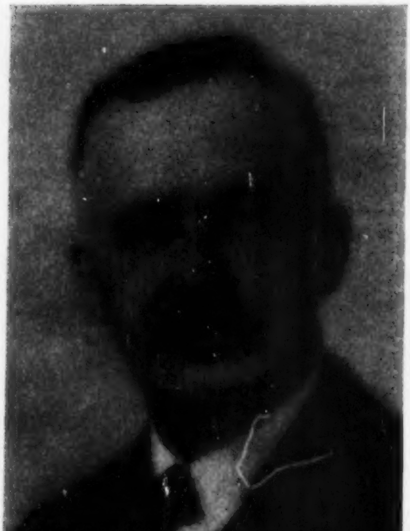
II—The Library of the New York Academy of Medicine

THE Library of the New York Academy of Medicine is second only to the Army Medical Library in this country and, abroad, to the Library of the Faculty of Medicine in Paris. The Library now has more than 218,000 volumes, not counting duplicates. The periodical literature of the world is readily available. The readers numbered 58,528 in 1936, as against 26,093 in 1927. The Library is open to the public from nine to five o'clock. During the month of June, 1936, a classification was made of the 4,308 persons who came to consult the magazines and books; sixty per cent were doctors of medicine.

The life of the New York Academy of Medicine began on December 12, 1846, when it met to organize in the hall of the New York Lyceum of Natural History at 561 to 565 Broadway. The constitution and by-laws were adopted at the meeting of January 6, 1847. Among the four objects of the Academy was:

> The cultivation and advancement of the science, by our united exertion for mutual improvement, and our contribution to medical literature.

From the Editorial Research Department of the Medical Times.



Archibald Malloch, M.D.
Librarian, New York Academy of Medicine

Thus a primary purpose in founding the Academy was to enable the profession to keep abreast of the progress of medical science. Consequently among the first officers we find as Librarian Dr. Thomas M. Marcoe and a committee of six to solicit donations of books. At the meeting held on February 3rd, 1847, this committee on books was instructed to provide a suitable seal and motto for the Academy.

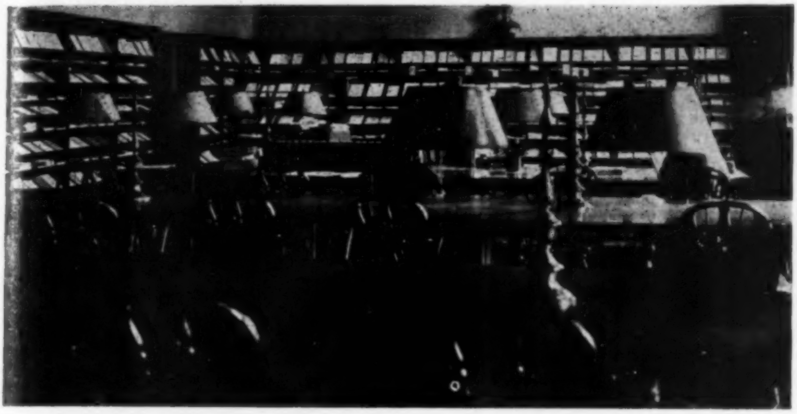
After the meeting of March 3, 1847, in the Lyceum, the Academy met in the Convention Hall at 179 Wooster Street until June 5, 1850. Between 1850 and 1875 meetings were held at New York University and at the College of Physicians and Surgeons.

The Academy's "contribution to medical literature" remained always a primary interest. The birth of the Library and the Academy was a coincident affair. When the Academy moved into a new home on Thirty-first Street in 1875 Dr. Samuel Smith Purple immediately made a generous contribution to the Library. The "Purple Collection" is a famous one still.

That Thirty-first Street building, by the way, was an old-fashioned, high-stooped brownstone house, which later was enlarged by a meeting hall in the rear of the structure, known as Du Bois Hall (after Dr. Abram Du Bois). Within five years after the occupancy of this building the books numbered 25,000. By 1880, it was necessary to engage a professional Librarian—John S. Brownne (retired to become Consulting Librarian in 1926 after forty-five years of faithful and able service). The books numbered 49,830 by 1900; 139,320 by 1926.

DURING 1887-8 a new building was erected at 17 West Forty-third Street and it was naively believed that this

New York Academy of Medicine Library. Main Reading Room.



*New York Academy of Medicine.
Current Periodicals Room.*

commodious structure would fulfill all the immediate and future needs of the Academy and Library. The large meeting hall—Hosack Hall, and the next largest meeting room—Du Bois Hall, seemed capacious enough for all time, as did the stack rooms and reading rooms. But by 1909 the library committee awakened to an acute need for more room. A fund of about $130,000 was raised by 1911, at which time it was realized that a structure of adequate size was beyond the means of the Academy. It was then proposed that the existing building be altered and added to. Here a serious snag was struck, for remodeling was found to be extremely difficult because of the fact that the stack was a fixed unit and could not be enlarged without almost a complete reconstruction of the building.

Things stood still for a while, or rather they got worse, and by 1917 were rather panicky, what with the war and the absorption of nearly half of the Fellows of the Academy by the military requirements of the country.

Doubtfully and reluctantly, in 1919, the remote possibility of additions and alterations to the old building was again studied. Postponement again ensued. Then in 1922, manna from heaven, in the shape of a grant of $1,000,000 from the Carnegie Corporation, fell upon the heads of the devoted membership. Under this stimulus, 1313 of the Fellows themselves subscribed an increased endowment of $206,161.64 and raised besides, among their friends, $324,922.78.

TO show the magnitude of the new project, it is only necessary to state that over a hundred sites had to be considered. One was bought in 1923 at Park Avenue and Sixtieth Street for $750,000 and sold in 1924 for a million dollars. The Park Avenue plans of 1923 called for a building which would have cost $2,225,000; but the expense would have been large, due to the fact that on a lot 100 by 120 feet it was not practicable to build the stack anywhere but within the main building. Although such a stack would have been larger than the immediate needs of the Academy, it would have been a fixed unit not permitting of any future expansion.

So, finally, after the million dollar sale, the present site at 2 East 103rd Street was purchased in 1924 for $225,000, which was subsequently added to by the purchase of an adjoining lot on East 103rd Street for $17,500. This was a good business stroke, for each of the other properties considered would have commanded a price of not less than half a million dollars, and the profit alone on the Park Avenue sale covered the cost of the new purchase.

By the spring of 1925 building operations were undertaken and the cornerstone of the present fireproof and permanent structure was laid on October 30, 1925. The cost was about a million dollars.

THE stack of the present building is a separate unit, which may be increased not only upward but also to the side, if future needs require it. There are nine floors given over to stacks. The main building is also so constructed as to permit the addition of more stories, while the auditorium extension permits of similar treatment. The building, therefore, permits of expansion for every possible future need that can be conceived of; this is said at the risk of being considered naive by later historians, as we ourselves have said that the planners of 1887-8 were. At this writing, however, "the property of the Academy permits expansion of its stacks to six times their present capacity."

A further gift of $550,000 was made by the Carnegie Corporation, making a total of $1,550,000. The Rockefeller Foundation has also continuously supported the activities of the Academy with munificent gifts.

The Library budget for 1937 gives a contemplated total of $101,413.60.

What a monument to medicine! What a workshop! What a thing of beauty! What a joy forever!

MISCELLANY

—Concluded from page 574

—It is a misdemeanor in some states to knowingly infect another person unlawfully.

● In a modern scientific column I have just read that the Medes and the Persians used air-conditioning. "They hung wet mats in their doorways and put their slaves to work throwing water over them. The outside air blowing through the grass mats lost some of its moisture and filled the room with drier and cooler air."

—So, that's why "It ain't the heat, it's the humidity!" I don't know that I should throw a wet blanket over any hot argument, but it seems to me that a water-saturated mat would be a poor strainer-outer of moisture. I'm funny that way.

● "British Writer Missing," headline in city daily.

—Yeah, some scientific writers are, too.

● An Indian girl, winner of a beauty contest, is called "Pretty Bear."

—Oh, a bathing beauty contest! It is barely possible she was debunking "beauty is only skin deep."

● A Texas evangelist has published a list of 723 sins.

—My! he's missing a lot.

● "A Boston experimenter recommends a salt mackerel for 'the morning after.'"

—This cristen sienz treatment for a patient in the grip of remorse would be a harrowing sight (Purloined with pepsin from the Lit. Digestion).

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ECONOMICS

—Concluded from page 575

mittee tentative provision was made for health insurance. Now it would seem that the earlier ideas of the committee may be put into effect.

An incredulous medical profession views these antics much as the general population views the question of whether or not we shall be drawn into the Second World War. "It can't happen here" is still a cherished conviction in many medical minds.

A. C. J.

Contemporary Progress

Otology

The Effect of Flight on the Middle Ear

H. G. ARMSTRONG of the United States Army Medical Corps *(Journal of the American Medical Association, 109:417, August 7, 1937)* states that airplane pilots suffer more from disturbances of the middle ear "than from all other occupational diseases combined." Airplane passengers are exposed to the same conditions. This form of otitis media is an inflammation of the middle ear due to "a pressure difference between the air in the tympanic cavity and that of the surrounding atmosphere commonly occurring during changes of altitude in airplane flights." The symptoms are discomfort or pain, tinnitus, and deafness; and the condition either in its acute stage or in its chronic stage closely resembles infectious otitis media. Differentiation would be difficult were it not for the history. In acute cases the first change is a passive hyperemia of the middle ear and Eustachian tube from positive pressure or an ischemia from negative pressure; this is followed by an active hyperemia. With high pressures there is a traumatic inflammation with serous exudate. The mucous membrane is congested and swollen and the tubes become blocked; the epidermal layer may become so inflamed as to rupture. The chronic form of "aero-otitis media" results from repeated injury of this type to the middle ear and tubes until the mucous membrane becomes chronically congested and thickened. All aviators should be carefully tested for patency of the Eustachian tubes; and if any stenosis of the tube is found, the condition should be corrected by proper treatment. The most useful measure is to instruct the individual pilot, or anyone who frequently travels by airplane, in the proper method of maintaining the patency of the Eustachian tubes. The simplest method of doing this is swallowing at sufficiently frequent intervals; a method of contracting the salpingo - pharyngeal muscles is also effective and may be learned by practice.

COMMENT

This article is extremely interesting and very timely. As air travel becomes more common, the otologist will be confronted by patients with definite ear symptoms. Naturally, if the Eustachian tube is blocked, a negative pressure will result in the middle ear, which may cause a serous exudate. However, most of these patients do not take long flights and the proper atmospheric condition

again takes place when they reach the earth. It is our feeling that one should treat these cases most conservatively. Of course, when it comes to air pilots, it is necessary to maintain an ear equilibrium and proper instruction may be all that is necessary.

H. H.

Disturbances of Taste of Otitic Origin

W. Y. H. HO *(Archives of Otolaryngology, 26:146, August, 1937)* notes that disturbances of taste of otitic origin depend upon lesions involving the chorda tympani or the facial nerve. The disturbances of taste that may be caused by middle ear disease or by operations on the ear have been recognized by otologists but the subject has been somewhat neglected. The author reports tests for disturbances of taste in cases of middle ear disease and after mastoidectomy. The following testing reagents were used: A 5 per cent. solution of cane sugar for a sweet taste; a 10 per cent. solution of sodium chloride for a salty taste; a 1 per cent. solution of acetic acid for a sour taste; a 1 per cent. solution of quinine sulphate for a bitter taste. In 21 cases of acute middle ear disease in which the tests were made, no change in the sense of taste was found in any instance. In 18 cases of chronic middle ear disease, some showed disturbances of taste on the affected side and others did not. This "depends on two factors—the resistance of the chorda tympani nerve to the infection and/or the effect of the pathologic changes of chronic otorrhea on the chorda tympani nerve." In one case in which the tests were made after ossiculectomy, the patient showed loss of the sensation of taste on the anterior portion of the tongue corresponding to the side operated on; this indicates injury to the chorda tympani nerve "on account of its close anatomic relationship to the malleus and the incus." In 20 patients after radical mastoidectomy there was complete loss of the sensation of taste on the anterior two-thirds of the tongue on the side operated; this included 3 cases with postoperative paralysis of the facial nerve. After modified radical or simple mastoidectomy, there was some disturbance of taste, but not complete loss on the operated side. In none of the cases was the patient conscious of the loss or diminution of the taste sensation; hence the tests are necessary to demonstrate the difference between the operated and the normal side in taste perception.

COMMENT

Although this is an extremely interesting article from a scientific point of view, clinically it is of little importance.

H. H.

Differentiation Between Receding and Progressing Cases of Petrositis

On the basis of his clinical experience, R. ALMOUR *(New York State Journal of Medicine, 37:1495, Sept. 1, 1937)* notes that important signs of progression in a case of petrositis are the following: Increase in the severity and duration of the pain; change from a localized pain to a more generalized distribution; sudden cessation of the pain. Persistence of a profuse otomastoidal discharge, or sudden cessation of this discharge. The appearance of transitory phenomena, such as facial weakness, dizzy spells, nausea and vomiting (not projectile), an exhaustible ankle clonus, or photophobia. Occurrence of homolateral abducens palsy not previously noted; or failure of an abducens palsy present before mastoidectomy to subside; evidence of involvement of the ninth, tenth and eleventh cranial nerves; evidence of meningeal irritation. Increasing general irritability and malaise. The author notes that he has found that sudden cessation of pain or of a profuse ear discharge is always a grave sign indicating rupture through the petrous bone. The signs of regression of a petrositis are gradual diminution in the severity and duration of the pain with increasing free intervals; gradual cessation of the discharge; no development of the transient phenomena or of abducens paralysis; improvement of any abducens paralysis that may be present; improvement in the patient's general condition. When the symptoms definitely indicate progression, further surgical measures are necessary if intracranial complications are to be avoided.

COMMENT

We have admired the work of the author, but we repeat what we have said before, that petrositis is not a common complication

of mastoid disease. Regardless of the excellent operations which have been suggested for its relief, we still feel that watchful waiting will accomplish a great deal. In former years we saw more of these cases than we do today. Merely a re-opening of the mastoid cavity with the relief of tension has been sufficient to cure many cases, even where there has been an abducens paralysis.

H. H.

The Diagnosis of Nerve Deafness

S. J. Crowe *(Laryngoscope, 47:492, July, 1937)* reports a study of the hearing in the cases of Ménière's symptom-complex and the so-called pseudo-Ménière's disease, as in these conditions the deafness is of the nerve type: Air conduction greater than bone conduction; the Weber test lateralized to the better hearing ear, and bone conduction much shortened or entirely absent. While these patients have "the classical symptoms" of an organic nerve lesion, repeated tests have shown that the hearing acuity fluctuates. In some cases total loss of bone conduction was noted at one examination, and a year or two later, the bone conduction was practically normal. All the tests were made "with every precaution to insure accuracy" and masking of the better hearing ear. These findings indicate that even total loss of bone conduction does not necessarily indicate irreparable damage to the inner ear or the auditory nerve. In 20 patients with the Ménière symptom-complex in whom tinnitus was a prominent symptom, entire relief from the tinnitus was obtained in only 8 cases after a total division of both the cochlear and the vestibular nerve; in 11 cases the tinnitus was unchanged, and in one case was much worse after the operation. It is evident that in these cases the lesion causing the tinnitus is not located in the cochlea but in the central pathways. It has been stated that a severe tinnitus acts as a masking noise, and that impairment or loss of bone conduction is due to it. Examination of 28 patients with Ménière's disease at an average of two and a half years after the division of the vestibular branch of the auditory nerve alone, showed that hearing by bone conduction was progressively diminished or remained the same in 9 cases, but in 6 of these 9 cases the tinnitus entirely disappeared soon after the operation. Four patients with entire loss of bone conduction never had tinnitus. In a study of another group of 100 patients, it was found that a loud tinnitus in one ear did not impair the hearing by bone conduction in the opposite ear. Tinnitus must be regarded as a symptom of the lesion causing the impairment of hearing by bone or by air conduction, and not the cause of such impairment. The exact nature of the lesion causing the symptoms of Ménière's disease is not known; it is essential that postmortem studies be made on patients whose hearing has been carefully tested during life; and that such studies include "the central auditory and vestibular pathways, in addition to the structures in the temporal bone." When the lesions producing Ménière's symptom-complex are understood, the less severe and more common disorders of the auditory and vestibular apparatus can be better understood and diagnosed.

Comment

Nerve deafness is not as common as one would think. Many of the cases so diagnosed have been found to have a combination of perceptive and conductive deafness. When the conduction deafness is improved, the hearing improves. We agree that when symptoms of Ménière's disease occur, we are up against a situation which is very baffling. The author is frank enough in stating that in over fifty per cent of the cases in which severe tinnitus was present the symptoms were not relieved after a total division of the cochlear and vestibular nerve. Considering how severe such an operation is and that the result is a total loss of hearing, it should not be advised except as a last resort.

H. H.

The Effect of Roentgen Irradiation of the Stellate Ganglion on Hearing Disturbances

R. SANN *(Hals-Nasen-und Ohrenarzt, 28:241, July, 1937)* reports irradiation of the stellate ganglion with small doses of Roentgen-rays in cases of deafness in which there were symptoms indicating disturbances of the sympathetic nervous system—such as migraine, angioneurotic edema, vasomotor disturbances and coldness of the extremities. A dosage of 55r—in a few cases increased up to 110r—was given for three treatments at intervals of eight days. Of the 23 cases treated, 18 showed perceptive deafness,

2 conduction deafness (not benefited by inflation) and 3 a mixed type. In 19 cases the treatment resulted in definite improvement, especially in hearing for the voice or the corresponding tone levels; in 3 cases there was no definite change in hearing; in one case the hearing became worse. In 17 cases the improvement in hearing was maintained, the first case having been treated two years ago.

Comment

We always object to an article in which a special method of treatment is advised which does not effect relief or cure in the majority of cases. We have had considerable experience in the treatment of deafness by the x-ray. Only after painstaking examination and a minute inspection of the nasopharynx and the Eustachian tubes can we advise that the x-ray will be of any value. We have collected data on a number of patients who have taken x-ray treatments. These were cases in which there was an increase of lymphatic tissue in the nasopharynx and the mouths of the Eustachian tubes. These data proved to us that such treatment may be of value in selected cases but certainly should not be used in the haphazard manner suggested by this and other articles.

H. H.

+ Rhinolaryngology +

Perennial Allergic Rhinitis

W. L. WINKENWERDER and L. M. GAY *(Bulletin of the Johns Hopkins Hospital, 61:90, August, 1937)* note that perennial allergic rhinitis or perennial hay fever is now a well recognized disease. They present a study of 198 cases from their private practice; only 92 of these cases, or less than 50 per cent., gave a family history of allergy. There was an associated asthma in 25 per cent. in this series of cases; associated pollen hay fever in 20 per cent.; eczema in 5 per cent.; urticaria in 3 per cent., and food sensitivity in less than 2 per cent. In a study of the allergic cause in these cases, it was found that the three most common allergens responsible for the symptoms were dust, feathers and orris root; animal danders, other than feathers, were not frequently of etiological significance. Food sensitivity was not found to be the cause of the rhinitis in any instance. Treatment by subcutaneous injections of a potent extract of the allergen or allergens demonstrated to be responsible for the symptoms was carried out in 137 cases. In addition the patients were instructed to avoid contact with these allergens as far as possible. In 113 cases, or 82 per cent., there was a favorable response to this treatment; 53 patients were definitely cured (free from all symptoms); 55 were markedly improved; and 5 somewhat improved. The duration of treatment in these cases varied from one or two months to five years. Relapse or recurrence of symptoms was frequently observed; 60 patients had 81 relapses, although avoiding the allergens as far as possible; these relapses responded favorably to specific desensitization. While in cases of true allergic rhinitis operation for sinus or tonsillar infection does not relieve the essential symptoms of the rhinitis, such operation may be necessary to relieve an associated condition; this was considered necessary in only 9 cases of the present series.

Comment

The authors are honest enough to state that there was a relapse or recurrence of symptoms in many cases. Although we agree with them that the most common allergens are dust, feathers and orris root, we are not quite satisfied that the point has been reached where a definite cure can be promised in any specific case. We are not surprised to find that a sinus condition or tonsillar infection was present in so few cases. We have always been against advising operative procedures in these cases and hope that the majority of physicians will be more conservative in the future. Again we wish to state, as we have frequently in the past, that zinc ionization is quite successful in relieving the symptoms when the usual treatment has been of no avail.

H. H.

Use of the Benzedrine Inhaler for Children

E. S. VOLLMER *(Archives of Otolaryngology, 26:91, July, 1937)* reports the use of a benzedrine inhaler in the treatment of acute rhinopharyngitis and sinusitis in children. Older children used the inhaler in the same way as

adults. For infants and younger children, the parents were instructed to insert the inhaler into each nostril and allow one deep inspiration hourly. In each case observations were made in the clinic to determine the immediate effect of the use of the inhaler. Before the inhaler was used, examination showed edema and congestion of the nasal mucous membrane, with mucopus in the meatuses and nasopharynx. After the inhaler had been employed three times at five minute intervals, reexamination of the nose and throat showed "marked shrinkage and blanching of the nasal mucosa and increased drainage from the meatuses, often producing an increase in the postnasal discharge." Children over three years of age expectorated the mucus from the pharynx. These changes were accompanied by the relief of the feeling of "stuffiness." In all the cases of acute rhinopharyngitis and sinusitis a very considerable degree of relief was obtained with the use of the benzedrine inhaler; no ill effect was observed; there was no complaint of headache, sleeplessness or restlessness. Gastro-intestinal disturbances, such as are sometimes observed with the use of ephedrine compounds, did not occur. In 2 cases of asthma the nasal obstructive symptoms were relieved. In 2 cases of epistaxis the bleeding was not controlled by the use of the benzedrine inhaler. The inhaler was also employed in 25 cases of otitis media associated with rhinopharyngitis; the treatment did not seem to alter the course of the otitis definitely, but did relieve the associated nasal symptoms. (See also the abstract on The Use of Benzedrine Vapor in Children in the Section of Pediatrics, *Medical Times*, July, 1937, p. 371).

COMMENT

The universal use of benzedrine has been largely a matter of certain concerns advertising its excellent qualities. We agree that it is an excellent adjuvant to treatment but it is certainly no cure-all. We personally have seen no bad results from its conservative use but the general stimulation which occurs has been commented upon and considered deleterious by others.

H. H.

Pharyngeal Reconstruction for Nasopharyngeal Stenosis

G. B. O'CONNOR *(Annals of Otology, Rhinology and Laryngology, 86:376, June, 1937)* describes a new operative procedure for correcting acquired cicatricial stenosis of the nasopharynx. The symptoms in the case reported were complete nasal obstruction, change of voice, anosmia, impaired hearing and respiratory difficulty on exertion. Examination showed a small 3 mm. opening into the nasopharynx behind and at the base of the uvula. The essential factors in the operation are the removal of the scar tissue and the reconstruction of the whole stenotic area with epithelium—a thin one-piece Thiersch graft from the inner arm. The author calls this the "epithelial pocket method." He is convinced that "this type of skin graft properly immobilized will take 100 per cent. of the time even in the mouth." In regard to the technique and the postoperative care he notes especially that: It is necessary to overcorrect the defect while making the epithelial pocket because contraction will occur. Continual soft rubber dilatation after opening is necessary for at least two weeks; and this should be followed by daily dilatation by the patient and the physician. In the case reported symptoms were completely relieved and the opening into the nasopharynx was 30 mm. in diameter. The author is convinced that this epithelial pocket method gives a more satisfactory solution for "the physiological problems present" than other procedures employed in such cases.

COMMENT

Fortunately, with operative procedures in the throat, particularly removal of tonsils and adenoids, reaching the stage where the operation is performed with little trauma, a stenosis of the nasopharynx seldom occurs. Although we welcome the suggestion of the author, much depends upon the skill of the operator and no man should chance an operation of this kind until he mentally visualizes the end result. Although a skin graft from the arm apparently worked, most operators prefer taking a graft from the inner lining of the cheek. Such a graft must be placed in direct contact with the denuded tissues and be sufficiently loose so that final contraction will not be too great.

H. H.

Laryngeal Tuberculosis

T. RUEDI *(Journal of Laryngology and Otology, 52:537, August, 1937)* reports his experience with laryngeal tuberculosis at Davos in the past twenty-five years. On the basis of his observations he concludes that the larynx is not infected by the sputum, as many patients having positive sputum for years never show laryngeal involvement. The spread of the infection to the larynx is either by the lymphatic or the hemotogenous route. With the former the laryngeal tuberculosis is of the benign type; with the latter, of the generalized infiltrative type. Among the patients at Davos, the incidence of the malignant generalized type of laryngeal tuberculosis has increased in relation to the benign forms. Yet with the Alpine climatic treatment supplemented by modern thoracic surgery where indicated, the pulmonary lesions are cured or rendered inactive, and the laryngeal lesion may subside spontaneously. When the pulmonary lesion is, or becomes, inactive, but the laryngeal lesion does not heal, the author considers electro-cauterization the treatment of choice. He uses a spiral platinum burner of suitable shape and size, brought "to almost a white heat," so that it carbonizes the tissues; hemorrhages do not occur with this treatment; if any arytenoid ulcer is to be cauterized, the superior laryngeal nerve is injected with alcohol, as this reduces the post-operative pain. After this procedure, the use of the voice should be entirely prohibited for a time, and phenol inhalations given. Where the pulmonary lesion is still active, electro-cauterization should be done only on such urgent indications as a constant irritating cough, dysphagia, or failure of narcotics to control pain. Otherwise in such cases treatment must depend on the use of phenol inhalations, ultra-violet light, X-ray therapy (10 to 15 per cent erythema dose), intravenous Solganol B (in benign cases); and if there is pain, narcotics and local anesthesia. In cases where the procedure of electro-cauterization is indicated, the author has found that it gives the best results of any method in laryngeal tuberculosis. "It brings about healing of severe ulcers of the vocal cords, restores the voice to a patient who has been hoarse or aphonic for months or years, gives him back his earning power, and allows him again to take his place in society."

COMMENT

The average laryngologist fortunately does not see many cases of laryngeal tuberculosis. We welcome the suggestion of the author that electrocauterization be used in most cases.

H. H.

Unrecognized Complications of Peritonsillar and Lateral Pharyngeal Abscess

C. T. PORTER *(Archives of Otolaryngology, 26:127, August, 1937)* reports 3 illustrative cases showing that complications may develop from peritonsillar or pharyngeal abscess, which are either unrecognized or are inadequately operated. In these cases the pharyngo-maxillary fossa is most important; it occupies the same "key position" in deep infection of the neck leading to infection of the blood stream as the ethmoid bone in sinusitis and orbital infection. Blood cultures cannot always be depended upon in the diagnosis of such complications as they have been negative in the majority of cases reported; cultures should be made both aerobically and anaerobically; this would probably result in a higher percentage of positives. In all cases of peritonsillar or pharyngeal abscess in which there is a definite thickening of the vein or a thrombus that obliterates the vein up to the jugular bulb, the mastoid should be opened and the sigmoid sinus explored. This was done in 2 of the cases reported with recovery in one case; in the other the procedure was too long delayed. In the third case the arterial rather than the venous system was involved, and ligation of the common carotid (on the left side) was necessary.

COMMENT

Years ago a laryngologist in New York demonstrated the pathways of infection into the deeper tissues of the neck resulting from abscesses or other infections in the throat. We venture to say that seldom will one encounter a complication such as the author describes where there is direct pointing so that the abscess can be correctly incised. The most serious cases are those in which there is a cellulitis extending from the nasopharynx

down to the larynx and no definite place in which an incision can be made. It is our policy in such cases to make multiple incisions with a fine pointed dressing forceps, under general anesthesia. There is usually profuse hemorrhage so that one cannot definitely state whether one has opened into an abscessed cavity or not. Sometimes it may be necessary to insert the gloved finger into the incisions and strip down the edematous tissues. We fail to see why an infection of the mastoid or the sigmoid sinus should take place. Of course if the tissues of the neck are considerably swollen, so that there is definite invasion of these tissues, one may consider it advisable to perform an external operation.

H. H.

Gynecology

Tubo-Uterine Implantation for Sterility

V. B. GREEN-ARMYTAGE *(British Medical Journal, 2:6, July 3, 1937)* notes that comparatively few gynecologists in the United States or England appear to be in favor of salpingostomy or tubal implantation for the relief of sterility. A questionnaire sent out by Solomons to 150 "world-known" gynecologists showed that 53 of them operated on the tubes for the relief of sterility; the incidence of pregnancy after salpingostomy alone averaged 8 to 10 per cent., although a few men reported higher percentage. The author notes that it is important after such operations to determine the patency of the tubes, which is best done by means of salpingography. The author has done 25 salpingostomies with 4 living children; and 3 tubo-uterine implantations with one success. This latter case is reported in detail. A modification of the Bonney technique was used; as the patient had a contracted (funnel) pelvis, she was delivered by Cesarean section at term; the puerperium was uncomplicated and the child normal. The author is convinced that in cases of sterility in which the woman is anxious to have a child and suffers from her inability to become pregnant, it is proper to give her the option of having an operation, provided some portion of the tube is patent. Not all such operations are successful in the best selected cases, but the occasional success obtained should "impel the gynecologist to continue his efforts and improve his technique, thereby achieving better results" (Solomon).

COMMENT

Pregnancy following salpingostomy is rare. The percentages range from 3 to 10 per cent—averaging about 5 per cent. We often wish the prospects were brighter. Those patients who "take the chance" and are successful in obtaining a living child are very happy—and so is the gynecologist. Tubo-uterine implantation for sterility is still more doubtful but the occasional successful case repays in big dividends all the chance, risk and expense involved in the effort. Good (perfect!) technic and "plenty of practice" make for success.

H. B. M.

Tuberculosis of the Cervix

W. C. DANFORTH *(Annals of Surgery, 106:407 September, 1937)* notes that tuberculosis of the cervix is a rare disease, although it is probable that it occurs more frequently than the statistics given in the literature indicate. In 1935 Counseller and Collins collected 107 cases, including one case of their own. The author reports one case which is the only one he has seen, and the only case that has occurred in the Evanston (Illinois) Hospital gynecological service. The patient was a woman, sixty years of age, whose chief complaint was a profuse vaginal discharge; she had some backache and lower abdominal discomfort. Examination showed irregular ulceration on the visible portion of the cervix, which was not deep and did not show the typical induration of carcinoma. Examination of a biopsy specimen showed lesions typical of tuberculosis with giant cell formation. A total hysterectomy was done; pathological examination showed tuberculous lesions in the uterus and extensive scar tissue in the Fallopian tubes. The patient made a good recovery and has been well for seven years without evidence of tuberculous lesions elsewhere. As primary tuberculosis of the cervix or limitation of the disease to the cervix has been found in only one-fifth to one-sixth of the cases of cervical tuberculosis, and the uterus and/or the tubes are usually involved, the author considers that com-

plete hysterectomy is the treatment of choice if the general condition of the patient permits. In his case, this procedure gave excellent results.

COMMENT

We have never seen a case of tuberculosis of the cervix. Therefore it's no effort to agree with Danforth that this is a very rare gynecological lesion. Hysterectomy may or may not be indicated, depending on the extent of the tuberculous lesion and associated complications. We have seen irradiation apparently eradicate other forms of pelvic tuberculosis and, under certain conditions, would elect to use it in tuberculosis of the cervix. Irradiation is, naturally, much less hazardous for the patient than total-hysterectomy. Microscopic examination of tissue removed for biopsy is the only way to clinch the diagnosis, and occasionally, as did my only suspected case, the lesion turns out to be malignant.

H. B. M.

Therapy of Vulvovaginal Mycosis

H. C. HESSELTINE *(American Journal of Obstetrics and Gynecology. 34:439, September, 1937)* reports a study of various agents employed in the treatment of vulvovaginitis due to infection with yeast-like fungi (monilia and cryptococci). This study was undertaken primarily because many of the patients with these infections were unable to report for frequent treatments with gentian violet topical applications, which are certainly effective only if treatment is given daily or bidaily. Of the substances tested experimentally against these fungi, iodine "in the element form" was found to be most effective. This was then tried clinically. The vaginal and vulval walls were painted with a diluted Lugol's solution; if the patient could tolerate one-fourth strength this was used; and if not, a greater dilution; the strength of the solution is increased for subsequent treatments. Treatments are given once a week. In the interval, the patient is given capsules (size 00) each containing one-fourth gm. iodine in kaolin to be inserted into the vagina (one capsule each evening). In a small series of cases treated (25), cure or marked and progressive improvement was obtained with this treatment. The method was more successful than the dye method for patients not able to come to the clinic more frequently than once a week.

COMMENT

Any simple office treatment for vulvovaginal mycosis (yeast-like fungi) is of value. According to Hesseltine, iodine destroys these fungi with the least number of repeat treatments. Lugol's solution, 1/4 strength or a greater dilution, was used. We have used Lugol's (1/4 strength) and find it "works," but occasionally a sensitive patient will complain of "burning in the vagina." Be careful! The capsule of iodine and kaolin recommended we have not used but it sounds reasonable.

H. B. M.

Extroversion of the Ovaries for Functional Amenorrhea

K. V. BAILEY *(Journal of Obstetrics and Gynecology of the British Empire, 44:637, August, 1937)* reports the treatment of 17 cases of secondary or functional amenorrhea by operation for "extroversion" of the ovary. This method was first used six years ago before efficient hormone products were available; but it has also been employed in more recent years in combination with "a minor degree of hormone therapy," because in certain cases hormone therapy alone does not give constantly satisfactory results. In the cases in which this operation has been employed the ovaries have shown definite pathological changes —either multiple cystic degeneration, or less frequently fibrous and hyaline changes in the tunica and stroma; such changes eventually make normal ovulation impossible, although developing follicles may still persist in the deeper zones not involved in the pathological process. The operation of extroversion of the ovaries is designed to assist maturity and ovulation of the remaining follicles by bringing them nearer to the surface. A wedge, with its base at the periphery, is cut from the cystic or cirrhotic ovary. Sutures are then passed so as to hold the cut edges back, exposing the cut surface; this surface faces downward toward the pouch of Douglas and is not in contact with any other peritoneal surface. Although it appears contrary to surgical standards thus to produce a raw surface in the pelvic cavity, the author has never observed evi-

dence of postoperative adhesions or any undesirable effect of this operation. In some cases the surgical treatment has been supplemented by small doses of antuitrin S given by injection. Regular menstruation was established in 13 of the 17 patients operated by this method; 3 of these 13 patients were treated by endocrine therapy as described by Kaufmann prior to the operation, without result. Most of these patients with amenorrhea had other symptoms, chiefly nervous, which were also relieved on the establishment of menstruation.

COMMENT

Extroversion of the ovaries for functional amenorrhea is nothing new. Many years ago (and occasionally now) we employed the operation although we do not think it is an "operation of choice." At best, such an operation may not be expected to give relief for more than a few months or years, and, what's more, there is a potential, if not actual, mortality, not to mention the disability due to adhesions associated with every laparotomy. Do the operation if you must, but try other methods (and there are many!) first.

H. B. M.

Pseudomenstruation in the Human Female

C. MAZER and his associates at the Mt. Sinai Hospital, Philadelphia, Penn., *(Surgery, Gynecology and Obstetrics, 65:30, July, 1937)* report that examination of specimens of endometrium from sterile women has shown that in 30 per cent. cyclic uterine bleeding, clinically indistinguishable from true menstruation, occurs from "an endometrium totally lacking the usual secretory changes." Such an endometrium was observed but once in 68 fertile or potentially fertile women in whom curettage was done in the premenstrual period. This condition may be due to failure of ovulation, a lack of responsiveness of the uterus to a normal ovarian activity (congenital or acquired), or to a "quantitative or qualitative" disharmony between the two ovarian hormones. Unless absence of ovulation can be demonstrated by examination of the ovaries, this phenomenon is better designated as "pseudomenstruation" rather than "anovular menstruation."

Skin Hyperesthesia in Salpingitis

J. S. LABATE *(Surgery, Gynecology and Obstetrics, 65:321, September, 1937)* reports a study of skin hyperesthesia in 53 cases of acute salpingitis. In testing for skin hyperesthesia, the skin and subcutaneous tissues were grasped with the thumb and forefinger without exerting any downward pressure on the deeper structures; the skin was then "pulled straight out simultaneously exerting a vigorous twist." Every part of the abdomen was tested carefully; and the total area of hyperalgesia mapped out, noting the points of maximum sensitivity. Only when the skin traction caused definitely demonstrable discomfort was the sign considered positive. Of the 53 patients with acute salpingitis, 26, or 49 per cent., showed marked skin hyperesthesia; and 15, or 28.3 per cent., moderate hyperesthesia. The area of maximum hyperesthesia was located at the spino-umbilical point in 50 per cent. of the cases with hyperalgesia; at Ligat's point in 12.7 per cent.; and in 16.7 per cent. the skin tenderness diffused downward from the spino-umbilical point in the form of a band. In 10 cases of subacute or chronic salpingitis, there was marked skin hyperesthesia in 4 and moderate hyperesthesia in 2 cases. In 8 cases of tubo-ovarian abscess, skin hyperesthesia could never be demonstrated on repeated examinations. In 12 cases of ectopic tubal pregnancy, no skin hyperesthesia was demonstrated in 11 cases; in one case moderate skin hyperesthesia was demonstrated; in this case rupture occurred into the broad ligament with formation of a hematoma. The presence of definitely demonstrable skin hyperesthesia, therefore, favors the diagnosis of salpingitis, but it does not indicate the severity of the infection.

COMMENT

Since the accurate diagnosis of acute salpingitis is difficult in all cases, and well-nigh impossible in some instances, any simple diagnostic help should be welcomed. Such a test is the skin hyperesthesia present in acute salpingitis. We have not employed this test in a sufficient number of cases to have "an opinion," but we should keep on "trying it out"—and we certainly intend to.

H. B. M.

Obstetrics

Maternal Morbidity

R. M. GRIER *(American Journal of Obstetrics and Gynecology, 34:298, August, 1937)* presents a study of maternal morbidity in 4,837 women delivered at the Evanston (Illinois) Hospital in six years. There were 5 maternal deaths in this series, a mortality of 0.10 per cent.; only one death was due to puerperal infection. In this series any woman whose temperature rose to 100.4° F. on any two or more days, not including the day of delivery, was considered to have a morbid puerperium. The percentage of morbidity was lowest in the cases delivered spontaneously, 3.8 per cent.; it was highest in the cases of Cesarean section, 38.5 per cent., or ten times that of the spontaneously delivered cases. Midforceps and version also showed a relatively high percentage of morbidity, 13.5 and 16.2 per cent., respectively. The occurrence of cervical tears was another factor that increased the morbidity to 7.9 per cent. Uterine packing was employed "quite freely," although it caused a definite increase in morbidity (to 15.8 per cent.); it should not be delayed too long as hemorrhage is "equally dangerous." The technique of delivery was essentially the same in the hospital throughout the period studied. Every patient is given a complete perineal preparation. Rectal examinations are employed as a routine; if vaginal examination is necessary 4 per cent. mercurochrome is usually injected into the vagina prior to such examination and the physician wears a sterile gown. In the last three years sodium pentobarbital and scopolamine have been used during labor in 62 per cent. of cases. The first year that these drugs were employed there was an increase in morbidity, but since that time the morbidity has decreased to a level lower than that in the three years preceding their use. The author concludes that in a general hospital, the maintenance of a good delivery-room technique with a well-trained group of obstetricians, makes it possible to reduce puerperal morbidity to a low level. Reducing the number of the more radical types of delivery and especially of Cesarean section is a most important factor in reducing this morbidity.

COMMENT

Maternal mortality has been discussed with much enthusiasm of late. Maternal morbidity, however, has not "come in" for as much discussion as it deserves. Oftentimes it would seem almost more humane to have a mortality rather than have a woman who is a chronic invalid for life. Morbidity is most important and we should "bend over backwards" in its prevention. "An ounce of prevention is worth a pound of cure" is certainly applicable in maternal morbidity. "Watch your asepsis and antisepsis" should be the slogan of every physician doing obstetrics. H. B. M.

Habitual Abortion; Treatment with Progesterone or Vitamin E

P. M. F. BISHOP *(Guy's Hospital Reports, 87:362, July, 1937)* reports the use of progesterone or vitamin E in 22 pregnancies in 18 women. In one of these cases the treatment was given because of threatened abortion in a primipara. In the other cases, there was a history of repeated abortions in previous pregnancies. Of the 22 pregnancies, 8 were carried to full term and a live baby delivered, and one was terminated successfully at thirty-six weeks by Cesarean section (9 successes); 6 patients are pregnant at the time of the report and have reached a stage of pregnancy more advanced than that at which they have previously aborted (6 "improvements"). In 7 cases abortion occurred in spite of the treatment (7 failures). Four of these 7 failures occurred in an atypical group, including women who had had one previous full-term pregnancy. It is probable that a higher percentage of successes would have been obtained in a carefully selected group of typical habitual abortions. Two of the patients treated noted complete absence of vomiting during the pregnancy. In 3 cases a second baby was born not more than eighteen months after the successfully treated pregnancy with no further treatment during the second pregnancy. This may indicate either that "the defect in the endocrine mechanism —whatever that defect may be—has been permanently corrected by successfully bringing one pregnancy to term;" or

that the effect of progesterone or vitamin E is more lasting than has been supposed.

COMMENT

The treatment of habitual abortion is very unsatisfactory. What is habitual abortion? What is the cause? The answer to the first question is a matter of personal opinion. Certainly some of the author's cases I would not class as "habitual." The second question we cannot answer—even haphazardly. We know very little as to the "cause" of habitual abortion. Until we do there is apt to be no very satisfactory form of treatment. Try progesterone or vitamine E—it may work. Try anything that sounds reasonable, for many such cases "pray for success"—a successful pregnancy leads to much happiness.

H. B. M.

Abnormal Bleeding in Extra-Uterine Pregnancy

H. BUSCHBECK *(Zentralbladtt für Gynäkologie, 61:1877, August 7, 1937)* in a review of 141 cases of extra-uterine pregnancy, found three types of abnormal menstrual history. In the first type with a regular menstrual cycle, menstruation ceases and amenorrhea persists until acute symptoms develop that bring the patient to operation; this was observed in 25 per cent. of the cases. In the second type, menstruation ceases, but after a period of amenorrhea, which may be very short, abnormal persistent bleeding develops and persists up to the time the patient comes under observation; this was the most common type, occurring in 58 per cent. of the author's cases. In the third type, bleeding is noted at the time of the menstrual period, but is abnormal in amount or duration; this is followed by an interval without bleeding, and then persistent bleeding develops; this occurred in 23.1 per cent. of the author's cases. There were only 2 cases in the series that could not be assigned to one of these three types. In the great majority of cases of extra-uterine pregnancy, therefore, there is a disturbance of the menstrual cycle which should at least suggest the possibility of an abnormal pregnancy.

COMMENT

Ectopic pregnancy has been called "the enigma of the gynecologist"—and no doubt it's true. The correct diagnosis of unruptured ectopic gestation is made less often than any other gynecological lesion that I know about. The history is the "keystone" in the diagnosis. But! how many doctors can or do take a good history. Very few—and therein lies the majority of mistakes in diagnosis, ectopic gestation in particular.

H. B. M.

Eclampsia and its Sequelae

H. M. TEEL and D. E. REID *(American Journal of Obstetrics, 34:12, July, 1937)* present a study of the cases of eclampsia occurring at the Boston Lying-In Hospital in the past twenty years. During this period there were 55,426 patients delivered at the hospital, with 173 cases of eclampsia occurring in 168 patients (5 patients showing recurrent eclampsia). The incidence of eclampsia was therefore, 1 in 320 deliveries. But in 127 of the cases, patients with eclampsia were referred to the clinic as emergencies. Of the patients who had made one or more visits to the prenatal clinic only 46 developed eclampsia, the incidence of eclampsia in patients under the care of the clinic being approximately 1 in 1,200 deliveries. Most of these patients who developed eclampsia had failed to keep appointments or had refused admission to the hospital earlier in pregnancy. Thus the authors conclude that with "reasonable" co-operation of the patients and adequate prenatal care, it is possible to prevent eclampsia almost completely. The total number of deaths in the series was 46, an uncorrected mortality of 26.6 per cent.; 39 of these deaths occurred among the 127 emergency cases (30.7 per cent. mortality); 7 deaths among the 46 prenatal clinic patients (a mortality of 15.2 per cent.). In 121 patients whose history in regard to previous hypertension or nephritis was unknown—the mortality was 28.1 per cent., in 39 patients whose past history was negative—the mortality was 10.3 per cent. Of 13 known hypertensive or nephritic patients, 8 died, a mortality of 61.5 per cent. In the 46 fatal cases, death was preceded by pulmonary edema in 26 instances, by uremia in 4, by shock and hemorrhage in 3, and by cerebral hemorrhage in 2 cases. The high incidence of pulmonary edema in these fatal cases "suggests that the immediate cause of death in eclampsia is frequently left ventricular failure." The authors note no "significant discussion" of treatment in relation to mortality is possible,

as "the series goes back to the time when immediate accouchement forcé, bagging, and Cesarean section were in vogue." There were 8 deaths among 127 patients who survived the eclampsia; in 3 death was due to recurrent pregnancy toxemia, of which 2 were recurrent eclampsia. Of the 119 living patients who survived the eclampsia, 80 have been followed up. This follow-up group included 29 who were known to be normal before the eclamptic pregnancy; of these only 3 had systolic pressure above 150 at the follow-up examination, more than fifteen years postpartum in all. There were only 4 patients known to have hypertension or nephritis before the eclamptic pregnancy; all had systolic pressure above 175 at the time of the follow-up. There were 47 patients whose past history was unknown at the time of the eclamptic pregnancy; 15 had systolic pressure above 175; and 7 showed albuminuria. The urea clearance test was done in 50 patients at the time of the follow-up; in only one case was the urea clearance below 50 per cent. These findings indicate that "such damage as occurs as a result of eclampsia would appear to be primarily vascular in character. Chronic parenchymatous nephritis and significantly impaired renal function are uncommon sequelae."

COMMENT

Adequate prenatal care practically eliminates eclampsia. In our clinic at the Methodist Episcopal Hospital we do not have enough such cases for demonstration to our internes and students. In 1936, with 798 new prenatal patients, we had only 3 cases of eclampsia. "Prevention" is the slogan for eclampsia—it can be prevented in practically every case. The sequelae of eclampsia are mainly cardiovascular-renal and are apt to be disabling to a considerable degree. Prevention again "looms high" in this connection. The management of every pregnant woman is a "big job" and far more important than the average doctor or layman appreciates. Until this misapprehension is corrected maternal mortality and morbidity will not be materially decreased.

H. B. M.

The Oral Administration of Paraldehyde for the Relief of Pain During Labor

E. J. DeCOSTA and R. A. REIS *(American Journal of Obstetrics and Gynecology, 34:448, September, 1937)* report the administration of paraldehyde by mouth during labor for the relief of pain. Because of the unpleasant taste of the drug, administration in gelatine capsules,—the capsules being filled just before use—was tried in one group of patients. The dosage in this group was small; the initial dose was four capsules of 1 c.c. each, and this was repeated every hour until the hypnotic effect was obtained; the maximum quantity given was 28 c.c. in a seventeen hour period. In other groups larger doses (40 to 45 c.c.) were given in the form of an emulsion in almond oil and orange juice. While with the larger doses, analgesia was obtained in a considerable percentage of patients, many were restless and all required constant attention. With the smaller doses in capsules, paraldehyde was "only a fair analgesic" and not an amnesic, but proved an excellent hypnotic. Patients given these small doses sleep or rest between pains, but are "in complete contact with their environment" during contractions, although they state the medication renders the pains "more bearable." Labors were short; 72 per cent. were delivered spontaneously, and low forceps were used in the remaining 28 per cent. The favorable action of paraldehyde in these cases, the authors believe, is due in part to the fact that it aids the patient to relax and labor takes a more normal course because the patient is less influenced by "untoward stimuli" of fear and anxiety. The drug was found to be safe for both mother and child in all the dosages used; in the smaller dosage it seemed to expedite delivery. The use of paraldehyde is not advocated as a substitute for ethylene or ether, but may serve as a valuable adjunct during the first and early second stage of labor.

That most women in labor demand relief of pain, cannot be denied. The question of how completely relief is had depends on the physician in charge. If not sufficient to satisfy the patient then a change of doctors is apt to follow with the next pregnancy. After a fair trial, paraldehyde is just another analgesic drug to us. We "do not choose" to use it but it is a perfectly safe and efficient drug when properly administered.

H. B. M.

Associated Physicians
OF LONG ISLAND

THE Associated Physicians of Long Island met in Jamaica, L. I., Tuesday, October 5, for another successful outing. A large group of golfers took advantage of the mild weather and played the Queens Valley Golf Course, striving for the prizes offered by the entertainment committee.

A more serious minded group met in Queens General Hospital at 1:30 to inspect the immense city hospital. At 2:30 a scientific program was presented by the staff of the hospital through the efforts of Dr. Merwarth, chairman of our scientific committee, and Dr. Boettiger, head of the medical board of the hospital.

1. Diverticula of the Appendix, by Dr. Ezra A. Wolff. Discussion opened by Drs. T. M. Brennan and P. J. Dulligan.

2. Collection and Preservation of Breast Milk, by Dr. Walter C. A. Steffen. Discussion opened by Drs. Harry A. Naumer, Charles A. Weymuller and Miner Hill.

3. Peripheral Vascular Disease; Diagnosis and Methods of Treatment, by Dr. Harry C. Oard. Discussion opened by Drs. Wm. H. Lohman and Herbert T. Wikle.

4. Sternal Puncture: Method and Evaluation, by Dr. Louis M. Wiener. Discussion opened by Dr. E. R. Marzullo.

5. Treatment of Uterine Prolapse (Illustrated with Motion Pictures), by Dr. Joseph Wrana. Discussion opened by Drs. Wm. C. Meagher, T. S. Welton and Frederick C. Holden.

In the business meeting, the following men were unanimously elected to membership:

Proposed by Dr. J. L. Sengstack: Dr. John E. V. Smith, N. Y. Hom., 1934, Oyster Bay.

Proposed by Dr. Thurston S. Welton: Dr. William T. Daily, L. I. C. H., 1929, Brooklyn.

Proposed by Dr. Merrill N. Foote: Dr. Herbert S. Schofield, P. & S., N. Y., 1934, Garden City.

Proposed by Dr. Augustus Harris: Dr. Robert M. Rogers, L. I. C. H., 1907, Brooklyn.

Proposed by Dr. Henry S. Acken, Jr.: Dr. Elliston Farrell, Johns Hopkins, 1930, Brooklyn; Dr. Martin Z. Glynn, Georgetown, 1933, Brooklyn; Dr. Henry P. Lange, Cornell, 1931, Brooklyn; Dr. Hugh K. Miller, P. & S., N. Y., 1932, Brooklyn; Dr. Donald E. Swift, Syracuse, 1931, Brooklyn.

The cocktail hour in Queens Valley Golf Club brought the golfers and the men of science together again for a hearty and convivial greeting to the president, Dr. Charles A. Anderson. Dinner was attended by about 70 men, who were rewarded by a thrilling talk by Mr. Kip Farrington, a sportsman of international renown whose skill and fame are equalled only by Michael Lerner and Ernest Hemingway. Mr. Farrington kept the members spellbound with motion pictures in color of landing tuna, marlin, broad billed sword fish, and other sporting fish of the deep. His pictures of Nova Scotian waters and of Bimini transported the audience for a time to sportsman's paradise.

Medical Book News

● All books for review and communications concerning Book News should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn, New York.

Edited by Alfred E. Shipley, M.D., Dr. P.H.

Roentgenology for the Cardiologist

CLINICAL ROENTGENOLOGY OF THE CARDIOVASCULAR SYSTEM. Anatomy, Physiology, Pathology, Experiments and Clinical Applications. By Hugo Roesler, M.D., Springfield, Charles C. Thomas, [c. 1937]. 343 pages, illustrated. 4to. Cloth, $7.50.

It requires considable temerity to write a review of Roesler's *Clinical Roentgenology*, especially when one has read the quotation above the preface in which it is stated that reviews are "a kind of children's disease which more or less attacks new-born books." The prognosis in this attack is excellent because the child is unusually sturdy. Furthermore the child is exactly like its father, careful, learned, precise, expounding clearly the intricacies of clinical roentgenology of the cardiovascular system.

Especially noteworthy in this work are chapters on the normal cardiovascular system. So many of us use the fluoroscope and fail to get the most out of our studies because we do not know the anatomical relations of the structures we examine. Careful perusal of the chapters on diseases of the aorta and of the pulmonary artery will reward the reader with new concepts and new insight into the study of these structures by means of the roentgen ray. When the author comes to a discussion of pericardial disease and congenital malformations he is perhaps at his best. He has added so much to current knowledge in these fields that these chapters are outstanding.

Clinical Roentgenology will be valuable to every physician who uses a fluoroscope. He can use it as a reference work and will not be disappointed. One of the most attractive features of the book is the wealth of excellent illustrations and the interesting legends that accompany them. They alone, without the text, would make an excellent compendium on diseases of the heart.

EDWIN P. MAYNARD.

DANIEL WHISTLER
1619-1684

Classical Quotations

● The epiphyses at the joints are massive and large out of proportion to the age; in size too they are out of proportion to the growth of the other parts of the body, especially those of the arms and feet . . . Knotty swellings also grow out on the sides (of the chest) where the cartilaginous parts join the bony. The whole bony system is in truth flexible like wax that is rather liquid.

Daniel Whistler (1619-1684) *De morbo puerili Anglorum quem patrio idiomate idigenae vocant* the Rickets. Leyden, 1645.

A New Edition of Howell

A TEXTBOOK OF PHYSIOLOGY FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, M.D. Thirteenth edition thoroughly revised. Philadelphia, W. B. Saunders Company, [c. 1936]. 1150 pages, illustrated. 8vo. Cloth, $7.00.

The new edition of this text maintains the standard of the previous volumes. The author's well known ability as a master of exposition is too well known to need comment. For a lucid discussion of fundamental physiology Howell's text book will always be recognized.

GEORGE B. RAY.

Comparative Research Work

EXPERIMENTAL AND CLINICAL STUDIES OF THE SPINE OF THE DOG. By Geoffrey B. Brook, D.Sc. Baltimore, William Wood & Company, [c. 1936]. 122 pages, illustrated. 8vo. Cloth, $2.00.

The monograph is divided into two sections, the first of which deals with the technical considerations of cisternal puncture of the dog and with the cytological consequences of this procedure as observed in a study of the cerebrospinal fluid. The second part records the roentgenographic findings obtainable after the introduction of the radio-opaque lipiodal (descending) into the cisterna magna. The value of this procedure in the diagnosis of diseases of the spinal axis of the dog is considered to be of a high order by the author. Those familiar with similar technique in the human will be impressed with the relatively slow and spotty descent of the oil in the case of the dog. The ultimate disposition of lipiodal along the nerve roots is illustrated.

Altogether, the book represents a contribution of worth to veterinary medicine.

RUSSELL MEYERS.

Three Health Books for the Public

TAKE CARE OF YOURSELF. A Practical Guide to Health and Beauty. By Jerome W. Ephraim. New York, Simon and Schuster, [c. 1937]. 287 pages. 8vo. Cloth, $2.00.

Careful reading of this book shows considerable care in preparation. There is probably nothing in it that would do the public any harm; there is much in it that will be of real benefit if taken seriously by the self-medicators and self-diagnosers.

The book is readable and covers the usual run of popular remedies for home doctoring.

The author looks at the consumer as an individual with an abysmal ignorance of fundamental facts, a credulity and desire to believe in miracles, an uncritical attitude toward what he is told, an urge for bargains and golden opportunities—with an insistence on irrelevant and superficial details.

The discussions thoughout the book on cosmetics, reducing, teeth, indigestion, pain killers, sleep, alcoholism and what-have-you are written to reach "this average buyer who is determined to be sheared."

The moral of the book is "Consumer Reform Yourself!" It can be recommended.

ALEC N. THOMSON.

HEALTH EDUCATION OF THE PUBLIC. A Practical Manual of Technic. By W. W. Bauer, M.D. and Thomas G. Hull, Ph.D. Philadelphia, W. B. Saunders Company, [c. 1937]. 227 pages, illustrated. 8vo. Cloth, $2.50.

Not many years ago, this book would have been only of academic interest to the practicing physician, but the increasing demand for talks, newspaper articles and the like by physicians on medical and health topics makes it of practical value.

The physician is the logical one to give authoritative medical advice but it must be given clearly in language and by methods which appeal to the public. This book is an excellent guide for that purpose.

In a small volume the authors have presented a mass of information with respect to the various media by which the community can receive such health information. Chapters include the source of materials, the radio, the exhibit, the meeting, pamphlets, newspapers, magazine articles, motion pictures and other methods.

The book should be on the shelves of every county medical society library for constant reference thereto by public health, press reference and other appropriate committees. Those physicians who are called upon frequently to give community health information should have it in their libraries also.

ALFRED E. SHIPLEY.

THE TRAFFIC IN HEALTH. By Charles Solomon, M.D. New York, Navarre Publishing Company, Inc., [c. 1937]. 393 pages. 8vo. Cloth, $2.75.

As the author says in his preface, this book is written primarily for thinking readers, seriously desirous of informing themselves. It discusses the patent medicine problem, and what to do about it. It devotes space under general subdivisions to the various types of conditions for which self-diagnosis and self-medication are all too prevalent.

A layman, a young adult, who tried to read the book as straight reading, and felt that the author accomplished his mission, expressed himself to the effect that the book is a little hard for the average layman to read. It is, however, a useful book as a reference on good and bad drugs.

The use of the book by this person as a reference work indicates its great potentialities. Listening to the radio when a saline laxative or a cosmetic was mentioned, the book was picked up, consulted for the particular item, and read with renewed interest.

There is a long bibliography for the person who wants to read further in detail, and there is an index of ready reference.

ALEC N. THOMSON.

A Brush-up Pathology

AIDS TO PATHOLOGY. By Harry Campbell, M.D. and Kenneth Campbell, M.B. Seventh edition. London, Baillière, Tindall & Cox, [c. 1937]. (Baltimore, Williams & Wilkins Co.) 263 pages, illustrated. 16mo. Cloth, $1.50.

This is one of a British series for students' aid designed for "committing to memory the subjects for which they are to be examined, yet offering the general practitioner a valuable means of brushing up." There is a good deal of useful and sometimes interesting medical and literary information in relation to clinical diagnosis as well as pathology, but the contents will not present much practical help to the reader. The material is frequently inadequate and sometimes actually faulty. Faultlessly memorized, the student should pass the subject but not necessarily elsewhere than abroad. For whiskbroom service to the general practitioner some other source should be recommended.

IRVING M. DERBY.

The "Islands of Langerhans"

CONTRIBUTIONS TO THE MICROSCOPIC ANATOMY OF THE PANCREAS. By Paul Langerhans. Reprint of the German original with an English Translation and an Introductory Essay by H. Morrison, M.D., Baltimore. The Johns Hopkins Press, [c. 1937]. 39 pages. 4to. Paper, $1.

This fascinating little brochure comes from the Department of Medicine, Tufts Medical School. It was read before the Boston Medical History Club and reprinted from the *Bulletin of the Institute of the History of Medicine*, vol. 5, No. 3, March 1937. It consists of a reprint of Dr. Paul Langerhans' *Inaugural Dissertation for the Attainment of the Degree in Medicine and Surgery* at the Friderich-Wilhelms-Universität in Berlin on February 18, 1869. It is a detailed description of his microscopic study of the structure of the pancreas, in the course of which he discovered the small aggregations of cells, now so familiar and known as the "Islands of Langerhans." He little knew that he had given to medicine the foundation for one of the most brilliant advances in a practically unknown field which was to yield results of almost incalculable value. Dr. Morrison has made a happy and accurate translation, and has also given an interesting, short biographical sketch of the author. No lover of medical history can resist possession of the book.

J. M. VAN COTT.

An Introduction to Medico-Legal Science

LEGAL MEDICINE AND TOXICOLOGY. By Thomas A. Gonzales, M.D., Morgan Vance, M.D., and Milton Helpern, M.D. New York, D. Appleton-Century Company, [c. 1937]. 754 pages, illustrated. 4to. Cloth, $10.00.

This book has well caught up with the progress in its field. The authors are frankly refreshing in their lack of dogmatisms, pointing out the uses and limitations of the many tests and observations in medical legal service. The book is profusely illustrated from well chosen subject material in which the authors have had successful past experience. Psychiatric discussion is limited but we feel that in this highly specialized field information can be better obtained from specialists.

We believe that this work will become the textbook for all those interested in the subject for many years to come.

M. EDWARD MARTEN.

A Well Known Prescription Book

A MEDICAL FORMULARY. By E. Quin Thornton, M.D. Fourteenth edition, thoroughly revised. Philadelphia, Lea & Febiger, [c. 1937]. 363 pages. 16mo. Cloth, $2.75.

Thornton's Medical Formulary has passed through many editions, this being the fourteenth, a fact which testifies to its continued popularity. The prescriptions given are in general simple, and the ingredients are taken from official sources. Nevertheless, the formulary cannot be recommended. A pharmacist would comment on the number of incompatibilities, and some of the therapy given is now considered obsolete. In one case at least (hepatic cirrhosis), modern therapeutic methods are not given.

If it is thought necessary for a young practitioner to have a guide in writing prescriptions, some of the hospital and State Pharmaceutical Association formularies can be recommended.

MILTON PLOTZ.

A New Book on Materia Medica

MATERIA MEDICA, TOXICOLOGY AND PHARMACOGNOSY. By William Mansfield, A.M. St. Louis, The C. V. Mosby Company, [c. 1937]. 707 pages, illustrated. 8vo. Cloth, $6.75.

This new text and reference book on the therapeutics, toxicology, pharmacognosy, and posology of the official drugs of the United States Pharmacopoeia XI and the National Formularly VI contains a wealth of undetailed and well organized material.

The first part of the book deals with drugs of plant and animal origin, with a working photograph and a very well systematized description of each drug including its origin, habitat, constituents, preparations, dose, and uses. In the latter part of the book are described inorganic and organic compounds which are classified as caustics, irritants and systemic poisons. The most common preparations are listed with a brief account of their therapeutic properties, administration, symptoms of poisoning and treatment.

The chapter on posology considers briefly the factors which influence the dose and the ways of administering drugs. The doses of U. S. P. and N. F. drugs are listed both alphabetically and according to the dose.

J. RAYMOND JOHNSON.

A New Concept of Measurement

BIOLOGICAL TIME. By P. Lecomte duNoüy. New York, The Macmillan Company, [c. 1937]. 180 pages. 8vo. Cloth, $2.00.

During the life span, variations in velocity of psychic and physiologic processes are not measurable alone by chronological time, nor can they always be compared with such duration. The exterior physical passage of time is mathematically uniform, but with biologic processes this uniformity becomes considerably lost. Such concepts are reviewed as *Biological Time* by the author who details methods of investigation and discusses the resultant characteristics of physiological time mensuration. The methods are little known generally, and make interesting reading. The study of wound repair, originated by du Noüy during the World War, is given at considerable length, but the other method, certain variations in tissue culture, is less developed. The book is definitely stimulating, unusual in its content, and gives the reader not only a birdseye view of individual biologic deceleration, but also offers a concept of time in a new setting.

IRVING M. DERBY.

A Compact Treatise

ELECTROCARDIOGRAPHY. By Chauncey C. Maher, M.D. Second edition. Baltimore, William Wood & Company, [c. 1937]. 254 pages, illustrated. 4to. Cloth, $4.00.

This second edition follows exactly the same form as the previous one, consisting of a brief description of the different electrocardiographic conditions illustrated by electrocardiograms to which are appended clinical and electrocardiographic diagnoses. There is also a schematic representation of the course of the waves in the heart. Illustrations are excellent and the book should provide a useful synopsis for the beginner. Incidentally, although it makes no fundamental difference, what is termed *Lead 4* is really *Lead 5*.

J. HAMILTON CRAWFORD.

For the Expectant Mother

SAFELY THROUGH CHILDBIRTH. A Guide Book for the Expectant Mother. By A. J. Rongy, M.D. New York, Emerson Books, Inc., [c. 1937]. 192 pages, illustrated. 12mo. Cloth, $2.00.

This is another book for the expectant mother. It is pleasantly different how-

ever, in that Rongy has not thought it necessary to go into the minute details of the anatomy of the genitalia of both sexes; most popular authors make a real show of this.

The author's narrative style is simple and clear, and his advice wholesome and sound, as we would expect it to be. The twenty illustrations add very little to the value of the book, and as a matter of fact, they are not any too well reproduced. The doctor may safely recommend this book to his patients.

CHARLES A. GORDON.

Neurology for Students and General Practitioners

THE BASIS OF CLINICAL NEUROLOGY. The Anatomy and Physiology of the Nervous System in Their Application to Clinical Neurology. By Samuel Brock, M.D. Baltimore, William Wood & Company, [c. 1937]. 360 pages, illustrated. 8vo. Cloth, $4.75.

A yawning gap is finally bridged. This volume provides a most satisfactory answer to questions brushed over lightly in most textbooks. In few specialties does the student require as sound and as firmly imbedded pegs on which to support his coat of knowledge as in diseases of the nervous system. Dr. Brock's years of exacting, personally critical, clinical research and teaching have made him fully aware of the value of a bomb proof grounding in anatomy and physiology to which the pages of this book bear testimony.

The book is compact, well organized, thoroughly integrated and tremendously informing—a treasured possession of the practitioner of neurology. In his recognized meticulous fashion the various component parts of the central nervous system are introduced and analyzed with a very appealing clarity and charm of style.

There are twenty-four chapters dealing with the rôle of the peripheral nerves, the spinal cord, the brain stem, cerebellum, epithalamus, the hypothalamus, the thalamus, the pituitary gland, the brain with consideration of its general and particular localizing functions. The vegetative nervous system and its functions, posture and the cerebrospinal fluid have special chapters. The circulations of the cord and brain are discussed. Seventy-two diagrams, many original, and others judiciously selected are very impressive. Seventeen tables, containing well sifted, accepted information are added. There are pleasing direct allusions to sources in the text and appended lists of references follow specific subject matter, indispensable in the modern textbook.

This book is ideally fitted for third and fourth year teaching in neurology. We venture to predict for it a large circulation in the general profession, as well as in the more restricted specialty of neurology. Those familiar with the high personal qualifications of the author will find recorded in these pages the same sense of balance, love of truth, untiring persistence for exacting detail, and tolerance of the opinion of others.

HAROLD R. MERWARTH.

Valuable Review on the Vitamins

THE AVITAMINOSES. The Chemical, Clinical and Pathological Aspects of the Vitamin Deficiency Diseases. By Walter H. Eddy, Ph.D. and Gilbert Dalldorf, M.D. Baltimore, The Williams & Wilkins Company, [c. 1937], 338 pages, illustrated. 8vo. Cloth, $4.50.

The literature on vitamin research is today so enormous that it is almost impossible for the busy clinician to sift the conclusions which might have a practical bearing in his practice. The authors of this book have succeeded in accomplishing this task for the physician. It represents a comprehensive discussion of the nature and functions of each of the six known vitamins. There follow systematic arrangements of the clinical and anatomical manifestations of each of the vitamin deficiencies.

Of practical value to the practicing physician is a chapter in each section concerned with a description of the subclinical forms of vitamin deficiency. Thus, under the discussion of vitamin A deficiency are noted night blindness, infections, renal calculi and the clinical phenomenon associated with epithelial metaplasia. The authors point out in the subclinical form of Vitamin B deficiency that intestinal intoxication in infants, various types of polyneuritis, anorexia, loss of appetite, pyloric obstruction, gastric anacidity and nonspecific chronic ulcerative colitis may develop as a manifestation of Vitamin B deficiency long before the signs of Beri Beri will appear. Thus, similarly are presented the clinical phenomena

associated with mild deficiencies of C. D. E and B_2.

This is a practical and valuable book for the physician who wishes to acquaint himself with the clinical aspects of vitamin deficiency diseases.

WILLIAM S. COLLENS.

A Textbook for the Roentgenologist

TEXTBOOK OF DIAGNOSTIC ROENTGENOLOGY. By Lewis J. Friedman, M.D. New York, D. Appleton-Century Company, [c. 1937]. 623 pages, illustrated. 4to. Cloth, $10.00.

The author covers in six hundred and twenty-three pages all phases of x-ray diagnosis. The first six chapters are devoted to apparatus, physics, fluoroscopic and radiographic procedures, accessories and the dark room. The literary quality is characterized by simple and efficient style, and the subjects are well covered for those interested in this branch of medicine. They are didactically treated and well illustrated by the wealth of material that can be found only in an institution the size of Bellevue Hospital. As an example, four types of right superior mediastinal tumors are portrayed. Sialography, encephalography, urethrography and cephalometry are also well illustrated, to say nothing of the abundance of bone, gastro-intestinal and chest material.

The true evaluation of radiograms can be made only by proper interpretation, predicated upon single or repeated roentgen studies, in conjunction with the anamnesis—a point well stressed by the author, and often forgotten by the physician.

In addition to the usual chapters covering the osseous system, the head, sinuses, chest, gastro-intestinal and urinary tracts, a special excellent chapter is devoted to modern studies of the uterus and adnexa. Pelvimetry in pregnancy concludes the book.

For the physician attempting roentgenography in conjunction with general practice, this book should prove a mine of information, and whet one's appetite for more advanced study. It should also prove an excellent textbook for students whose education in this rapidly advancing, all important specialty has been sadly neglected by medical schools throughout the country up to recent times.

MILTON G. WASCH.

How to Make a Physical Examination

PHYSICAL DIAGNOSIS. The Art and Technique of History Taking and Physical Examination of the Patient in Health and in Disease. By Don C. Sutton, M.D. St. Louis, The C. V. Mosby Company, [c. 1937]. 495 pages, illustrated. 8vo. Cloth, $5.00.

With the printing of this book on the methods of history taking and physical examination, there is added another volume to a rota which now must surely stagger the beginning student. This present contribution, though not original in any way, is nevertheless, quite helpful. Worth notice are the historical introduction, the anatomical cross sections and the uncommonly good photographs. Occasionally important signs, like the Argyll Robertson pupil, are treated too briefly, and no attempt is made to include a differential diagnosis. As expected, the best sections cover physical signs in heart disease.

ANDREW BABEY.

The Minister Looks at Sex Life

SEX LIFE IN MARRIAGE. By Oliver M. Butterfield, M.A. New York, Emerson Books, Inc., [c. 1937]. 192 pages, illustrated. 12mo. Cloth, $2.00.

Another sex book has been written for the public, this time by a minister who, after some experience as a pastor, then a lecturer at church groups, prepared himself for the new profession of marriage counselor by taking his M.A. in sociology. Dr. Kleegman, in her foreword says that "Question arises on the need of one more volume on this topic" of the physical side of marriage, but Butterfield is well qualified to write such a book, because "first and foremost he personally has the background of a completely happy marriage."

There is nothing new in the book except a few illustrations or line drawings by Robert L. Dickinson, to whom the volume is dedicated. Nor is it different, though it lacks not in clarity.

CHARLES A. GORDON.

History of Medicine in the Middle Ages

EARLY MEDIEVAL MEDICINE WITH SPECIAL REFERENCE TO FRANCE AND CHARTRES. By Loren C. MacKinney. Ph.D. The Hideyo Noguchi Lectures. Baltimore, The Johns Hopkins Press, [c. 1937]. 247 pages, illustrated. 8vo. Cloth, $2.75.

Mr. Loren MacKinney, in his book *Early Medieval Medicine* centers his

attentions on the method of practicing medicine during the period of the Middle Ages extending from the sixth to the eleventh century in the northern part of France. This covers the practice of medicine during the Merovingian, Carolingian, and post Carolingian periods. There were two distinct types of medicines—supernatural and the human type. In the Merovingian period, the supernatural type of healing predominated. Cures were effected mostly by reliance on the Christian Saints, their relics and magical incantations. The clerical influence was strongly against any human medicine.

During the Carolingian period the practice of medicine did not reveal any astonishing advance in medical knowledge. Monastic leaders took more or less an active part in medical practice and the outstanding therapeutic measures were bloodletting, diet, and the use of herbal potions of various kinds. Both the lay and clerical physicians were interested in improving the efficiency and methods of treatment. The monastic orders were more favorable to the human side of medicine.

In the post Carolingian period during the ninth and eleventh centuries the School of Chartres influenced the cultural end of medicine by stressing the knowledge of the Greek and Roman texts. A sane type of empirical medicine was developed and erection of hospital and proper nursing for medical cases was inaugurated.

This book is ably written and accurately presented, and will serve as a valuable addition to the historian's library.

WILLIAM RACHLIN.

BOOKS RECEIVED

Books received for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

GENERAL HYGIENE AND PREVENTIVE MEDICINE. A Text-Book for College Students, Medical Students, Nurses, Public Health Workers and Social Workers. By John Weinzirl, M.S., Ph.D. Edited by Adolph Weinzirl, M.S., M.D. Philadelphia, Lea & Febiger, [c. 1937]. 424 pages. 8vo. Cloth, $4.00.

SHADOW ON THE LAND. SYPHILIS. By Thomas Parran, M.D. New York, Reynal & Hitchcock. [c. 1937]. 309 pages, illustrated. 8vo. Cloth, $2.50.

THE DIAGNOSIS OF NERVOUS DISEASES. By Sir James Purves-Stewart, K.C.M.G. Eighth edition. Baltimore, William Wood & Company, [c. 1937]. 842 pages, illustrated. 8vo. Cloth, $10.00.

THE BIOLOGY OF HUMAN CONFLICT. An Anatomy of Behavior Individual and Social. By Trigant Burrow, M.D. New York, The Macmillan Company, [c. 1937]. 435 pages. 8vo. Cloth, $3.50.

LABORATORY OF OUTLINE IN FILTERABLE VIRUSES. By Roscoe R. Hyde with the assistance of Raymond E. Gardner. New York, The Macmillan Company, [c. 1937]. 85 pages, illustrated. 12mo. Cloth, $1.50.

MATERNAL DEATHS—THE WAYS TO PREVENTION. By Iago Galdston, M.D. New York, The Commonwealth Fund, [c. 1937]. 110 pages. 8vo. Cloth, $.75.

OPERATIVE SURGERY. The Ear, Air Passages and Neck. By Dr. Martin Kirschner. Volume III. Philadelphia, J. B. Lippincott Company, [c. 1937]. 528 pages. illustrated. 4to. Cloth, $12.00.

MEDICAL STATE BOARD EXAMINATIONS. Topical Summaries and Answers. An Organized Review of Actual Questions Given in Medical Licensing Examinations Throughout the United States. By Harold Rypins, M.D. Third edition, revised. Philadelphia, J. B. Lippincott Company, [c. 1937]. 448 pages. 8vo. Cloth, $4.50.

FEEDING BEHAVIOR OF INFANTS. A Pediatric Approach to the Mental Hygiene of Early Life. By Arnold Gesell, M.D. and Frances L. Ilg, M.D. Philadelphia, J. B. Lippincott Company, [c. 1937]. 201 pages, illustrated. 4to. Cloth, $4.50.

MEDICAL WRITING. Some Notes on Its Technic. By James H. Dempster, M.D. Saint Paul, Bruce Publishing Company, [c. 1937]. 168 pages, illustrated. 8vo. Cloth, $2.50.

PSEUDOCYESIS. By George Davis Bivin, Ph.D. and M. Pauline Klinger, M.A. (A Monograph of the George Davis Bivin Foundation). Bloomington, Indiana, The Principia Press, Inc., [c. 1937]. 265 pages, illustrated. 8vo. Cloth, $4.00.

A LABORATORY HANDBOOK FOR DIETETICS. By Mary S. Rose, Ph.D. Fourth edition. New York, The Macmillan Company, [c. 1937]. 322 pages. 8vo. Cloth, $3.00.

AUTONOMIC NEURO-EFFECTOR SYSTEMS. By Walter B. Cannon and Arturo Rosenblueth. New York, The Macmillan Company, [c. 1937]. 229 pages, illustrated. 8vo. Cloth, $4.00.